PRO MOTOCROSS

RIDING TECHNIQUES & FITNESS TIPS

WHOOPS!

There are three different techniques for whoops.

A. JUMPING THROUGH THE TROUGHS OF THE WHOOPS

B. FRONT WHEEL PLACEMENT.

C. SKIMMING THE TOPS OF THE WHOOPS.

SOME KEY POINTS TO PRACTICE ARE:

- Keep your weight off of the handlebars. (This is the most important thing). Don't allow your body weight to get thrown forward.

- Clutch and throttle control along with body movements are what gives you control.

- Keep the balls of your feet on the foot-pegs.

- Your handgrip should be in the accelerating position (high over grip). This is so your body movements can work through your whole range of motion over the bike.

- Hold onto the bike with your knees.

- Look far enough out in front of you to be ready for the four or fifth whoop, not just the next one or two.

When the whoops are uneven you most likely will have to use a combination of all three techniques. Make sure you look far enough ahead so you are ready for what's coming up.

HOW MANY JUMPING TECHNIQUES

1. Launch it.	L = aunch
2. Absorb on the throttle	T = hrottle
3. Absorb on the decel	D = ecel
4. Seat Bounce	S = eat
5. Whip	W = hip
6. Scrub	S = crub

1 Launch it means - to get more height and distance.

2 Absorb on the throttle means - to absorb the jump in order to stay low but still get good distance.

3 Absorb on the decel - means to absorb the jump as you are slowing down in order to stay lower and get back on the ground fast.

4 Seat bounce means - to jump as you are sitting on the bike.

5 Whip means - to throw the bike sideways off the jump.

6 Scrub means - to slide the front wheel off the top of the jump.

TEST YOUR BRAKING SKILLS

I want to share some ideas on how to test yourself on your braking skills, or for some, your "lack" of braking skills. The first thing to understand is the rear brake is the control brake, and the front brake is the brake that slows you down.

Let's begin with the rear brake, yes it will slow you down, and yes it will eventually stop you, but not as fast andefficiently as the front. Try this easy experiment,You will need a large flat area, or starting area, and 4 cones. Place the first cone (A) at one end of the drill area, the next cone (B) 30-40 yards in a straight line away from the first. You will need a helper to stand with the other 2 cones (C&D) around the second cone (B).

Now get your bike lined up at a dead stop right next to the first cone (A), and basically do a start and charge as fast as you can to the second cone (B), and right as you go by cone (B), pull in the clutch and apply the rear brake hard so you lock it up or skid to a complete stop. Have your helper place the third cone (C) by the front wheel at the point you came to a stop.

Now go back to the first cone, do another start, charge to the second cone, and this time, keep the clutch out and use only the front brake (1 finger only) until you come to a stop, have your helper mark this point at the front wheel.

It should be quite a bit shorter than the cone marked from the skidding rear wheel. If it took you longer to come to a stop with the front brake, then this shows you are very weak with the front brake, if you stopped in a shorter distance with the front brake only, then you can clearly see how much more effective the front brake is over the rear.

Now, go back to the first cone (A), and do another start, charge, and this time at cone (B), use both brakes, lightly on the rear (control), and heavy on the front, you should be even shorter than both the 2 cones the helper marked with (C&D). Try this drill both standing up while braking and also seated.

The idea of this drill is to make it clear in your mind what the advantages and limitations of the brakes are. I mentioned that the rear brake is the control brake, but used incorrectly, it becomes an "out of control" brake (skidding in most cases). If you repeat this drill several times, you will start to shrink your braking zone, which means you can hold it on longer coming into each corner off the straight.

Here are a few more tips on the front brake. Think of the modulation from "zero to ten". Zero is no brake, ten is max, five half way. The traction level can be thought of the same way, so the conditions will determine the amount of braking used.

If you "drag" the brake into the corner, the bike will squat down, thus changing the steering angle (steeper) and will help the bike turn quicker. Also under braking, the front tire will "flatten out", putting more tire and traction to the ground, and you can "steer" it through the turn.

If you come off the brakes to early (before the apex of the turn), the front tire will wander, seeking the path of least resistance, and you may wash out. Same with the rear brake, while dragging the rear brake, this will put added traction to the front and keep the bike stable.

The idea is to bring the speed into the corner, and use the brakes to control the speed and traction. And of course for ruts, using a bit of front brake drag will keep you to the inside of the rut so you won't pop out.

The idea is to bring the speed into the corner, and use the brakes to control the speed and traction. And of course for ruts, using a bit of front brake drag will keep you to the inside of the rut so you won't pop out.

I would recommend oval drills to perfect braking techniques, you must get a "feel" for how all this works. It takes time and it takes practice, so don't put it off.

For more on braking and other riding techniques, check out at Dirt Soldiers MX School.

SURROUND YOURSELF WITH THE RIGHT PEOPLE!

If you take a look at some of the most successful sporting programs in history, one thing seems to be a constant, if you surround yourself with the right combination of the right people, this will increase your chances of winning. Take for instance Lance Armstrong, 7 time Tour De France cycling winner. His coaches, trainers, team managers, sponsors, team members, and family all contributed to is success and winning ways, they even helped him beat cancer, so add doctors to that list as well.

Now look at Ricky Carmichael, same thing, coaches, sponsors, trainers, his mechanics, team managers, and family all played a huge role in his success. Traditionally in motocross, there would be a team in place such as a factory team, and they would bring in a rider, and most of the time that rider would far surpass what he ever did as a privateer or on his own. There would be some exceptions if that rider couldn't handle the pressure, chased women, partied or had to many injuries, but in most cases it was true that by being part of a strong team, his chances of winning were greatly increased.

Ricky was really one of the first riders who built a team around him, and then you might say "sold" it to the factories. He truly controlled his destiny by having a support team that wanted to win as much as he did. No one around him would let him off the hook or let him be led astray.

Now look at your program. Is this the type of people you are surrounding yourselves with? Does everyone around you, including your friends you hang out with want to see you successful? If not, it's time to evaluate what is dragging you DOWN, holding you back, and ultimately keeping you from winning or moving your program FORWARD.

Here are some of the things to consider. For the younger riders, the parents are a key. Are they positive, supportive and as serious as you are? Are they too serious? Do they keep you happy, enthusiastic and motivated? Do you bond and communicate well together? Do you have access to the tools that will help you become successful and reach your goals? Young riders need instruction, and lot's of it. Learn bad habits at this young age, and it will be much harder to overcome trying to work out bad habits and form breaks with your riding techniques. Young riders need a mentor, one that takes him or her under their wing and nurture them.

As these riders get older, they will need trainers, and people who will help them with their fitness, rest and recovery, diet and nutrition and make them strong. Soon a mechanic will come into the picture, and that person will take care of the bike and make sure they are the best they can be. Also, he will motivate and encourage you at the races and at the track.

Later with winning will come agents, team managers and other people who will greatly influence continued success. Most parents will move back and let these people take over, while some choose to stay involved.

And then there are your friends, this is a tough thing to talk about, it's personal, and it is hard choices, but I would just encourage you to choose them wisely. Girlfriends and boyfriends, husbands and wives will have huge impacts.

And your buddies or friends you hang with can and will destroy you if you don't be careful. So fly with Eagles and don't walk with Turkey's.

It only takes one person to implode a whole program, keep the negative pessimistic people away, and hold onto the people who can or will or did get you there at the top. Can you top Ricky

MOTOCROSS TRAINING

In motocross riding, there are two fundamental groups all techniques come from, the first is Mastering the 5 Controls (3 if you ride a pee wee), and the second is Maintaining the Center of Balance.Riding with the bike and body in perfect balance is crucial for maximum control and speed, not to mention the safety of the rider.

One technique that is a great tool to have and use is front wheel placement. Front wheel placement is just like it sounds, placing the front wheel where you desire it to go. This technique starts with a simple wheelie, just lifting the front wheel off the ground and starting to learn the balance point of the bike on just the rear wheel. You will start to find the correlation between being in the right power curve and the position of where you place your body weight. A good drill is just to go out in a flat field and start out in second gear, slowly move along and start to roll the throttle on while gently pulling back on the handlebars. You should be able to lift the wheel off the ground, then start to test where to stand (pretty centered), and what throttle positions to use.

Once you get comfortable with this first step, you can now try in third gear, then put a cone out in the field and try dropping the front wheel right at the cone, this will start teach accuracy. Most all wheel placements in motocross will be standing up, so sit down wheelies aren't as important.

Now that you are comfortable with the balance and accuracy of wheeling, you can start to apply these techniques out on the track. Front wheel placements, manueling (pulling the handlebars up into and away from your chest), and wheel taps (going across the tops of whoops and other obstacles on the rear wheel) are most commonly used in the whoops.

I try to teach any capable rider to try and enter a whoop section in a wheelie, lifting the front wheel off the flat ground before the first whoop, thus enabling them to place the front wheel onto the top of the second or third whoop. There are some great advantages to this technique, first you are entering the whoops with the gas on, and so the weight will transfer back to the rear of the bike keeping the front wheel light.

Secondly you are getting on the gas earlier out of the corner, instead of waiting till you actually get into the section, and lastly by not clipping the first whoop or jumping into the section, your bike will settle on top of the whoops much sooner, so you will float across the tops instead of riding a bucking bull through the section. Figure one part skill and one part commitment.

Once you have total confidence in these techniques, you will be able to see many opportunities with other sections around the track. The more you ride on the back wheel, the more you will be absorbing the shock and punishment from the rear shock and your legs (strong muscles), and not from the handlebars and arms (weak muscles).

So think balance, body position, knowing your power curve and motor strengths, throttle control and visualizing and timing when to lift the front wheel and when to set it down. It takes time, patience and practice, but see it through and you will be rewarded.

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OFF-ROAD RIDING TECHNIQUES

TREES
• Watch out for roots that can be hidden under leaves.
• Keep an eye out for low branches that could knock you off your bike.
• When splitting two trees, make sure you have enough room to safely get through.

ROCKS
• Look for the smoothest Line.
• Watch for rocks that could hit your footpeg and injure feet.
• Stay focused and avoid being overly aggressive.
• Avoid wheelspin.
• Watch for sharp rocks that could cause flat.
• Keep feet on foopegs as much as possible.

WATER
• Look for shortest and shallowest place to cross.
• Stand up, so you can use your knees to compensate for any sudden changes in terrian.
• Look out for rocks underwater that could affect steering.
• Don't create so much splashing that water gets into filter. I know it is fun though.

SIDEHILLING
• Look for smoothest line.
• Weight the outside footpeg.
• Use ruts or pre-existing lines to your advantage.
• always maintain your momentum.
• Avoid quick bursts of power that produce excessive wheelspin.

DOWNHILLS
• Stand up, with your weight toward back of the seat.
• Watch out for bumps that could cause you to loose contact with ground.
• Avoid grabbing to much front brake.

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UPHILLS AND CLIFF CLIMBS

- Choose a route before attacking the climb.
- Maintain a steady throttle.
- Frequently adjust body weight to maintain traction without wheeling.
- Make sure you have selected the right gear and avoid shifting in most cases.

G-OUTS

- Adjust your body weight so it's slightly rear of center.
- Keep your toes pointed up.
- Stand so your legs and arms soak up some of the impact

UPHILL RUTS

- Line up both wheels before the entrance of the rut.
- Avoid wheelspin as much as possible.
- Too much clutch work could make your wheel dig in.
- Maintain as much momentum as conditions premit.
- Watch out for ruts that split into several lines.
- Avoid being overly aggressive.

SURVIVAL TIPS

- Don't Panic.
- Always ride with a friend.
- Carry a fanny pack with spare parts and tools.
- Carry snacks bars, water, and matches.

JUST A BUMP IN THE ROAD

Just A Bump In The Road

You may be feeling pretty proud of yourself since you've got your riding technique down pat. You can fly around the track like superman, through deadly turns and the monster whoops. The embarrassing crash and burn episodes are almost non-existent. But just because your physical therapist has forgotten your name, it just means that the learning curve isn't quite as steep as it was.

You must now delve in a bit deeper to keep putting the razor to lap times. Read on and improve your game!

Fine Tune your Body English

Body English – it's not just for playing pool. Your riding form absolutely demands it. For instance, imagine that you're approaching the top of a hill and preparing to go airborne. What's your body English? Do you tend to lean back a bit? If so, wrong move! It's very important to assume a forward position; focus on putting your weight over your bike's handlebars.

To prepare for touchdown, every jump is configured a bit differently, of course. But there is one general concept to keep in mind here: your side to side position has a great effect on your stability when you hit the dirt. Keep your weight on the outside of both your saddle and peg. This will set you up for a major traction bite and this is what you want to get your forward momentum going. This is a prime spot to go on the attack and you need every advantage.

The Take on Brakes

One mistake that rookies tend to make as they ride up a jump is release their brakes too late. What's wrong with this approach? Your suspension will rebound when you let up on your brakes and you don't want this to happen at lift off.

Instead, concentrate on doing your braking before you start up the hill and have almost all of it done at the halfway point. Finish off with a feathering at the crest. This takes a bit of practice to perfect because it takes so much forethought. But if you focus on it, every hill, every time, until you get it down pat. Then it will come naturally and you can put the focus on other aspects of your technique.

Dealing with Mid-Corner Jumps

Mid-corner jumps or bumps are a special challenge when it comes to keeping your momentum going. Air time will cost you plenty here and it raises the possibility of taking a spill. You can minimize air time by getting your butt off the seat right before the jump; think of how a jockey posts in the saddle. Just say no to seat bounce effect!

BIKE FITTING FOR SHORTER RIDERS

Face it – some of us are, as they say, vertically challenged. But we still love to ride and race even though the factories build for the masses. They have to, or the bikes would be too expensive for anyone but the very elite to afford. They try to suit us as best as they can with tech innovations like shorter shocks, linkage mods, and sub frame variations, but they can't afford to meet everyone's needs.

As an example, look at running shoes. As high tech as they are, all the companies except for New Balance only offer one width. But what if you have an extra wide forefoot? All the cushioning in the world won't help you. So what can you do?

As Jason Thomas has said, you might try running the forks high in the clamps or sagging the rear shocks to try to compensate, but those things compromise other things, like the bike's geometry and how it handles on the corners.

Is it worth it? That's a personal call.

There are other things to try, too. But which ones work for you just depend on you. For instance, try adjusting your bars a bit further back. Have you tried to run your mounts lower? It's a no-brainer that the height of the foot pegs can make a difference.

But here are some other things to try. First, try lowering your seat. You should have some flexibility in this adjustment and it'll make a world of difference. Most riders like the compromise between the lowest and the highest setting.

Lowering your sub frame works well too. The trick is to cut it accurately and then re-weld it. Be accurate though, any misalignments might not be noticed but will play hell with your body alignment and performance. Lowering it by about eight millimetres is about the max you want to go.

Taller foot pegs are a good solution as well. There are some factory replacements on the market now which fit the bill.

In the long run, the best approach is to use a combination of all these moods rather than to go to extremes on just one.

BIKE SETUP FOR TALLER RIDERS

Just head on out to the local track and look around. Pay attention to all the motocross riders. The common factor is the difference between them. They all come in different sizes and shapes. But bike builders have to design and build for the masses, just as car companies do. For a high performance, custom ride, you'll have to make your own changes to shave seconds off your lap times.

Taller than average riders are a typical case where mods are required to maximize performance and rider comfort.

Never forget that the goal is to achieve a bike/human unit. Travis Preston belongs to the "tall guy" club. What does he do to mod his Sobe No Fear/Samsung Mobile/Honda CRF450R?

The most obvious thing to do is raise the seat. It's the easiest thing to do and sets the stage for all other mods.

Think about the bar height next. Also an easy fix, just a few millimetres higher on the bars and/or mounts make things equal with the seat mod.

Some taller riders just can't get it right without cutting down the sub frame. Is this ok? Sure, but keep it to a minimum and accurate – don't risk throwing things out of whack; never let an amateur with a torch close to your ride.

How big are your hands? If you are a much taller rider than the manufacturer counts on, you're hands will be bigger too. Bigger levers are in order because you never want to sacrifice flexibility, comfort, and access. The weight gain is negligible, trust me.

Finally, think about your bike's suspension. If you're taller, chances are you're bigger (I know, it's all lean muscle mass; ahem!). Anyway, in this case consider adding stiffer suspension. It will pay off in the long run.

TIRE PRESSURE

TIRE PRESSURE

Sometimes, one of the most importance parts of a bike's maintenance is passed over – checking tire pressure. But it shouldn't be; this is one of the things that can make it or break it in a race. If it's off, it will also make you work harder to maintain control. This should be part of your pre-ride ritual. Read on for the details on how to make this as painless as possible.

What purpose do the tires have? For one thing, they're an integral part of the suspension. If you were riding on solid rubber tires, believe me, it would be hemroid time. Also, just think about how important traction is to your performance. This is the job of your tires.

Why do you check the tire pressure before the ride? Because air expands when it warms up. The tire's pressure rating is specified for cool air. Also, keep in mind that your bike is not like your car. The mission and environment are different and so is the air pressure. For optimal performance, your front tire should hold about one PSI less than the back.

Do you need to check your pressure more than once during an event? Absolutely. As stated above, the actual pressure is dependant on the temperature of the air. Check it before each rest period or when the day gets progressively hotter or cooler. At some events, the racing will extend into the night under the big lights. The temperature can drop considerably once the sun goes down.

The type of terrain you're riding on can affect the air pressure you need to maintain for effective riding. Remember, fine tuning to specific conditions is one of the keys to success.

Following are some recommendations:

Sand or mud – 10 PSI in the rear tire and 12 in the front. These conditions get a better bite with a lower pressure, flatter geometry on the rear but the higher pressure in the front accents tracking.

Hard pack surfaces – This is a bit more equalized, only 11 PSI in the rear and 11.5 in the front. This is average supercross conditions.

Intermediate surfaces – This is the average type of condition we referenced above. A good way to go is 13 PSI in the rear tire, 12 in the front.

These guidelines are for a known MX track. That's where you know before hand what to expect. If you go riding on trails you might encounter any number of different conditions. In this case you should go for more pressure for optimized performance. I'd suggest 14 PSI rear and 13 PSI front. This is a bit higher than for racing conditions but remember that the speed will be greatly reduced and the chance of that dreaded flat tire is much higher.

SO, TAKE CARE OF YOUR TIRES AND THEY'LL TAKE CARE OF YOU.

RIDING IN MUD

One of the many elements that can face a motocrosser is mud. Now I would guess most people would rather stay home and remain clean, rather than go out and practice on a mud day. Now there are many riders with the attitude that either think, I really don't want to practice in the mud, so I will just deal with it if I am forced to race in it. Or, I won't practice in the mud because I won't race in the mud, period. But for the hardcore racer that is looking to win titles, or nationals or wants to be a complete racer, practicing in the mud is essential.

For amateur racers, consider how often the GNC Finals, The Whitney Spring National, Ponca, Loretta Lynn's, and the Mini O's, have mud moto's.

The strongest performances you may ever have can be during a mud race. The playing field is more level during a mud race, getting out of the start gate and through the first turn is more difficult, riders falling, bikes breaking, goggles running out of tearoff's, riders tiring out due to the weight of the bikes, and if you take the wrong line, you can end up stuck in the mud. Even Ricky Carmichael and James Stewart aren't real good in the mud. So consider the following tips.

It starts with preparation.

I'll be the first to agree that riding in the mud is hard on the bikes, especially bikes under 80cc, but there are a few things that can minimize the wear and tear. I would recommend a few more pounds of air in the rear tire so you won't flat by spinning the tube from all the wheel spin you're about to have. Also, don't forget to click your compression adjusters a bit firmer due to all the weight you're about to add.

Head over to the grocery store and pick up some "Pam" cooking spray. Before you head out, liberally spray down your bike, except the grips, levers, and the seat and tank area that you squeeze with the knees. Spray heavy underneath the fenders, the number plates, and all around the motor. This helps resist the mud from sticking, and really helps keep some of the weight off. This also allows the scorers to see your numbers in a race. After you spray down the bike, clean your brake rotors with some "Maxima" contact cleaner so your brakes will work. You can "Pam" your boots as well.

Cut pieces of foam to stuff any place you can to keep the mud from collecting. Do not block the air flow to the radiators. Hand guards will help keep some of the mud off your grips. And certainly probably the most important thing is to loosen up the chain quite a bit.

Once the sprockets collect mud, your chain becomes very tight, and landing from jumps with the chain to tight can snap it, or be very hard on your tranny. Lube it up good, too.

When I ride, I try not to hit the deep areas or really muddy sections as much as possible, but you do soon realize that no matter how much you try to miss stuff, your getting muddier all the time regardless. Just concentrate more on the delivery of the motor for the best traction.

When I ride, I try not to hit the deep areas or really muddy sections as much as possible, but you do soon realize that no matter how much you try to miss stuff, your getting muddier all the time regardless. Just concentrate more on the delivery of the motor for the best traction. Think about line selection, the lines that usually look the most used do not mean they are the best lines, they may have the deepest ruts. Try to keep your feet on the pegs as much as possible, try your best not to "paddle" through the ruts or corners. By having both feet on the pegs, you will be more balanced, with one leg out , you will lean to that side and "bounce" off one side of the rut, right back over to the other side. Also with both feet on the pegs, you can shift and use the rear brake as needed.Keep your elbows out and away from your sides, so you can row back and forth, and move from side to side. Look well out ahead of you, scan your vision through the ruts, stay focused and pretend your vision is a rabbit, and you are the Greyhound that is chasing it.

If the rabbit moves fast, the Greyhound will move fast! Don't over analyze everything, you will be out of shape all day, loosen up, keep your momentum up, and enjoy. Remember, this is costing you money to be out there.

Squeeze your knees to take the weight off the bars and to help control the bike with your stronger muscle groups. The more tension and nervousness you carry, the tighter you will ride, and then you will crash or tire out. Go with the flow, feel the track so you know when to deliver the power and know where and when to brake. If you are practicing, ride shorter moto's so your bike won't overheat if it gets clogged with mud. When you come in ,pay special attention around the radiators, and make sure there is sufficient air flow. Clean them if necessary. Also clean around the chain and sprockets. We toss the plastic countershaft sprocket guard, they only clog up with mud, just keep the metal case guard and remount with shorter bolts.

Definitely spray wash your bike any chance you get. Another important part of this is, gear and goggle preparation. Goggles will be one of the very biggest factors. Don't just put on a few tearoff's and plan on taking your goggles off, bad idea. Roll off's are best when it is really muddy, and some companies like Scott make tearoff's so thin, that you can stack 14 versus the regular tearoff's 3.

You may need all 14. If you use roll off's, make sure you have a full canister so you don't run out, or have a 20 foot tearoff chasing you. Use anti fog spray or cloths on the insides of your lenses, you need to see. Clear and amber lenses are best when overcast. Take your goggles to the line in a large ziplock bag, bring more than 1 pair.

Have a small towel tucked in your pants, if you fall, you can wipe your hand on the towel and wipe your grips off if needed. It's so hard to ride with muddy grips and gloves.

You can put a piece of foam on your helmet and visor if you'd like. So to review, prep the bike properly, use good technique while riding, have a "feel" for the track, and prep your gear and goggles well. And don't take your goggles off! Riding mud good is like anything else you want to get good at, practice. Now if we could just find someone that will let us tear up their track!

WHEEL TAPPING OVER JUMPS

WHEEL-TAPPING OVER JUMPS

There's a mind-numbing number of MX course configurations. Recently, track designers have adopted an interesting concept – a leapfrog set of jumps, each one following the prior. It's kind of like a novel, where one cliffhanger follows another with the tension mounting the whole time.

With us though, the designers prefix each jump with a loamy corner, just to elevate the tension and challenge our skill set. How can you handle this situation and gain a winning edge over the competition? Good question. One effective way is to adopt a technique used by our no-exhaust brethren, the BMX'ers.

These guys take the first jump in the regular manner but then get into the rhythm of carrying the front wheel over the jump's lip while wheel-tapping their rear wheel. Effectively, this will keep you pointed at the target while preparing you for the next jump in this roller coaster. Once you get into the rhythm of it you can work on picking up the pace.

The reason the track engineers make these configurations isn't to torture us – it's a tool to make the race more exciting. If you don't think these guys aren't good screenwriters, you don't get it yet. The sport is becoming increasingly sophisticated. But it takes the riders to make it all click.

But to be competitive on these types of courses, you really need to practice on them. Go out, practice the tactic outlined above. Go slow at first and get a feel for it. It's a matter of rhythm. Timing is everything in this scenario. But just keep in mind that on race day you'll be crowded on the roller coaster so be ready for last minute adjustments.

JUMPING

Webster's Dictionary describes the word "jump" like this. Jump: to spring into the air, to spring free from the ground or other base by the muscular action of feet and legs.

Even though Webster did describe jumping without a motorcycle underneath, some of the descriptions do apply. Muscular action of feet and legs certainly pertains to jumping a motorcycle, and also "spring" was mentioned, we'll just use it a bit different and think of the fork and shock springs.

But first we will back up a bit and start with "approach speed", which is just like it sounds, the speed you approach the obstacle at. If it takes 30 miles per hour approach speed to land the proper distance on the landing ramp, 25 mph will land you short, and 35 mph will take you long. You must also factor in with approach speed how must weight you will push into the pegs, or take off of the pegs at the transition from flat ground to the angled take off ramp. This will come from practice , experience and thus the "feel" to properly judge distances of different jumps. This approach speed usually begins from the exit of a corner or another obstacle. I recommend working on getting your speed up as early as possible so you won't be late on the take off ramp. If you have extra speed at the ramp, you can scrub speed with body and brakes, and chop the throttle if needed, but always charge, don't coast up to the obstacles.

Line selection will be important on jumps due to hazards on the face of some jumps, i.e.: kickers, rocks, slick surfaces and ruts need to be addressed to make the jump as safe as possible. Also setting up the next section is also important, you don't have to always take off and land right in the middle of every jump. Just think of the jump as a straight with an obstacle in it, make you line selections accordingly. If there is a kicker, don't let off the throttle when going through the bump, blip or throttle through to keep the "load' back on the rear wheel. Letting off here will mean weight transfer to the front wheel and a possible endo.

The next thing is a choice of two different techniques, preloading and rebounding (getting height), or minimizing (staying low) If you have a jump that is long enough that it can't be easily cleared by approach speed alone, you must gain distance by gaining some height. This is achieved by a simple 3 step process. First as you approach the jump ramp, stand up tall over the bike, and before you start to move up the ramp, push your body weight into the footpegs, like on a trampoline or pogo stick.

Then as you travel up the ramp, start to stand back up and forward to allow the suspension to come back up or rebound. And finally right as you leave the ramp, bend your knees up to let the bike rebound underneath you which will allow the suspension to "top out" and give you maximum height.

To stay low off of a jump that you can easily clear, you will do about the opposite of what was just described to gain height. As you approach the ramp, stay loose in the elbows and knees so when you start to travel up the ramp, the bike will be allowed to "come up under you" so as to not put weight on the pegs. Your timing should be consistent with the length of the take off ramp, quicker movements or absorption for short ramps, and more subtle, slower movements for longer ramps. You should be at the seat with your crotch right at the top of the take off, to help "knock down" the bike so it doesn't rebound up. You will look kind of "frog like' as you do this technique. Just concentrate on being soft as you go through the ramp. Once you get your timing down, then you can start to lean the bike over up the ramp to "whip' the bike, or turn your front wheel to the right or left side to deflect some of the inertia to the side to help stay lower. Lower means faster approach speeds and will allow you to get the wheels back on the ground sooner.

Other things to consider are spotting you landings, especially on the larger jumps as you take you runs up to them, you must visualize where the landings are. Also throttle control which will have a direct influence on to attitude of the bike in the air, weather the front wheel is high or low, and proper body position to keep balanced in the air.

Make sure you are in the proper gear. If you jump in to low of a gear, the front wheel will tend to drop as you take off. Try one gear higher so you can "float' over the jump. More distance can also be gained from proper gear selection.
Jumping makes allot of people nervous because a mistake can be costly, but if you are tense or nervous, you body will be stiff and tight off the jump, and this is the worst thing you can do. You will not be in sync with the bikes suspension, and the bike will become twitchy, and the more scared you are, the worse you will jump. So think of the jump as fun instead of how dangerous it is. Learn to commit, remember, indecision killed the cat! Your motorcycle was designed to jump, it only does what you put into it, so if you are having a problem, evaluate what you are doing and think about the fundamentals which will allow you to make to corrections. So have fun and be safe, and don't

take jumps for granted!

MOTORCYCLE GEARING

When the factory engineers develop a new bike, one of the most important things they have to do is optimize the gearing. They use their own test moto track with their own test riders. They use average riders and the track is an average, generic track so what do they end up with?

Average gearing. But when you think about it, it's all about mass marketing. That's a good thing though. If they manufactured a myriad of choices, delivery time would slump and manufacturing costs would be passed along to us. A large number of riders will be content with this set-up, but more aggressive racers want a custom gearing configuration. Let's look at some factors to consider.

To Gear Down or to Gear Up; That is the Question

This is really a personal preference but part of it depends on the tracks you ride on. Does it have a lot of long straight legs where you can get up a head of steam? Lots of tight coffee-cup turns at the base of steep jumps? Gearing up: this is achieved by by either using a smaller rear sprocket or a larger countershaft. The net effect is to add more speed while lowering the final drive ratio. Gearing down: achieved by using a larger rear sprocket or a smaller front sprocket. Net effect? It raises the final drive ratio, while lowering speed. Great for climbing.

But What is the Final Drive Ratio?

Alright, it's time to apply that schoolhouse math. To arrive at the final drive ratio, divide the number of teeth you've got on your rear sprocket by the number you have on your countershaft. But what does the number tell you? It's the number of times your countershaft will turn during one complete rear wheel rotation. A smaller number tells you that you'll experience higher RPMs for a certain speed and a higher number is the opposite. Now it all makes sense, right?

Riding at Altitude?

If you're planning to ride at a high altitude, not only should you get there a day or so early to acclimate and avoid light-headedness, but your ride needs modification too. Higher altitudes mean less engine power, so gear down to compensate.

Clutch Implications

An interesting side effect is that the lower your gearing, the less you'll have to use your clutch. Why? Because your engine will be more responsive and run freer. What About the Power band at Higher Gearing?
Basically, it's the opposite of what we just discussed – you'll put a bit more wear on your clutch; but on the other hand, your engine will be easier to control.

And Lower Gearing Power band?

In a low gearing configuration you'll find yourself shifting much more often to stay in the sweet spot. It's just the opposite of taller gearing. Be Your Own Pit Crew Be ready to fine-tune your gearing configuration on the fly without having to change the chain. Put together a starter pack to haul along with you to the track. Include a spare rear sprocket that's two teeth larger than the current one and a countershaft that's one tooth less. The tooth ratio of rear sprocket to countershaft is ½:3.

***NOTE:** As a rule of thumb, one tooth change at a time in gearing is the max. Wear and Tear: Your Sprocket Should Match Your Chain If your existing chain is worn and you use it with a new sprocket, you'll be throwing your sprocket money away because the sloppy chain links will wreak havoc with the new teeth.

Of Rear Sprockets and Countershafts

The smaller your countershaft is, the faster your chain is going to wear. It's a friction thing. Say you decide to ride with countershaft that's one tooth smaller. Your best bet is to use your standard counter coupled with a new chain with an extra link and a rear sprocket that's three to four teeth larger. But avoid the temptation to lengthen the chain with an extra master link; that's asking for trouble.

LEARN HOW TO BRAKE CORRECTLY

LEARN HOW TO BRAKE CORRECTLY

Your brakes are critical in motocross. The devil is in the details, as they say, and it's all those tiny details accumulating that can make you or break you. The strategy? Go hell-bent for leather on the straights and brake using the right technique when you're closing in on a crowded low-speed corner.

This is one of the big things that makes a pro a pro, and a weekend warrior a weekend warrior. The pros have fine-tuned their braking style to make it almost intuitive, like a surgeon applying just the right pressure with the scalpel; not a hair too little and not a hair too much. The moral? Don't be a meatball surgeon on your bike.

THE TEN PILLARS OF BRAKING SUCCESS

The First Pillar

Use 'em or lose 'em. Like the old gun adage, "Don't aim until you intend to shoot," the same goes with your brakes. If you're going to use them, don't choke or waffle. Wait for your window and bear down hard.

The Second Pillar

Focus on your front brake. You've got two brakes but they're not the same. The rear brake only picks up thirty percent of the braking load. Here's your mantra – your front brake is for stopping in a hurry, the rear brake is a tool for controlling the bike. Use it to control slides and direction, and to keep your RPMs in the appropriate powerband.

The Third Pillar

Time your braking action. As mentioned at the beginning of this article, the place to brake is in the corner, not feathering the brake on the approach. Butch up, Sally; time's a-wastin'. Besides, no one wants to get run over.

The Forth Pillar

Take advantage of brake markers. That's what they're there for. No, not the kind on the tracks that pocket-rocket racers zoom around. That's a freely-given crutch that moto racers don't get.

But why not make your own? Every course has things that are always there (that peculiar shaped rock, for example), and different things you pick up on the first lap on race day (the flagman in that shady spot, for instance). Most riders don't do this; let it be your ace in the hole.

The Fifth Pillar

What's under your tires really does matter. Adjust accordingly. You're not going to brake the same on the same run on the track on a muddy day as you are on a dry one. OK, that was a simplistic example, but you get the idea.

Pay attention to your surroundings carefully. Is it sandy? Muddy? What's the composition on that hill? Hills and jumps have multiple factors. Terrain and grade are just two of these.

The Sixth Pillar

Find your optimal brake lever adjustment and keep it there. For proper operation, there should be a bit of play on the front brake lever. About 3/16ths of an inch (0.474 centimeters) slack is the recommended number. If your index knuckle first begins engaging the brake, you should really be bearing down by the time the next knuckle is bent.

The Seventh Pillar

Brake before you start to lean your bike into the turn. Since we've spoken about braking hard and fast, you know you want to have stable rubber in contact with the dirt. Don't take a chance on skidding out of control, rather, pull through the turn at a speed that will set you up for the next challenge.

The Eighth Pillar

Beware of tight corners and hills that are off-camber. This is one place where using too much rear brake is a really bad idea. The physics are just setting you up for a "inconvenient landing."

The Ninth Pillar

The brake slide: learn it, love it, live it. This one technique, properly executed, it will cut real time off the lap. Not to mention, it looks really cool. When is it the most effective? Uphill corners are particularly good opportunities, as are hairpin turns.

What happens here, what makes it so fluid, is that while your front wheel is locked on the apex, your rear wheel is sliding around putting you in a winning position to jet onto the next straight.

The Tenth and Final Pillar

Give due diligence to your clutch. Whenever you need to brake unexpectedly, or you're trying to jockey for position, the ability to get a quick grip on your clutch and run on momentum controlled by your brakes is essential.

RACE DAY PRACTICE TIPS

What's your race day mindset? Are you just using it as another practice run or are you trying to kick some serious butt? Motocross, like politics, doesn't reward "practice rounds." If you want to succeed you've got to go 'till it hurts.

How do you do this? Here's a few tips:

If you don't think that you've got a chance against the field, race, but as a practice race. Focus on technique and strategy; watch and learn. Don't go for the gold; go for the gold bank.

Take time to watch your fellow competitors. It's no secret that pro football and basketball players spend hours reviewing opponent's games. Why? Know what they are doing and why!

Get your significant other to video you. No, not just for youtube. This is a great chance to see yourself and correct any errors that you didn't realize. Long distance runners use a technique where they don't focus on the entire distance. That's just too big to manage. Instead, they focus on one landmark at the end of their field of vision. Mentally, that's a much better idea.

Break the course up into sections and work it that way!

10 TIPS FOR BULLET-PROOF CLUTCH

10 TIPS

Your motocross clutch is the key to your bike's performance, and by extension, yours. You might have more tricks up your sleeve than anyone else hitting the dirt but if your clutch isn't up to par, you and your engine are going to be on totally different wavelengths and no translator out there can help. Let's talk about how to put the clinch on your clutch.

First, Get Rid of those Factory Clutch Springs

Bike factories take a minimalist view when they assemble the clutch assembly. One of the reasons they do this is to not turn off weaker riders in the showroom. They want all prospective buyers to say, "Ahhh," and not, "Arrgh!" So if you're not comfortable with wimpy clutch action (and really, who is?), go ahead and swap them out the springs for stiffer ones. For instance, you can substitute 250-rated springs if you're a 125 jockey.

For fine-tuning, keep in mind that you don't have to change them all out; in most cases two or three will do – just experiment and see what works for you.

Secondly, Don't Neglect Your Tranny Oil

No, this isn't like your car or truck, where you only change it every year, or in some cases, hardly ever. Ideally, replace your tranny oil every two or three races. Sound excessive? Maybe, but it's cheaper than a tranny overhaul, and the crud you pick up on the track will place early stress on your clutch plates.

Third, Carry Shims for a Quick Fix

Suppose you're out at the moto and halfway through the day, your clutch starts feeling spongy and you're fresh out of springs. What to do? If you packed a mess of assorted washers, you can simply insert the right ones under the bolt and viola! The added thickness will preload your springs and you're back on your game.

Forth, Remember that in a Pinch You can Run Automatic Transmission Fluid

Although you might not have known it, you can top off your tranny to the proper level with automatic tranny fluid.
If you have to though, be sure to use ATF (GM compatible), but don't use Ford type fluid. (The container will tell you which it is.)

What's the difference? GM fluid grips better than Ford fluid, which is slick as molasses. Which you don't want in a moto.

Fifth, Don't Use Factory-Installed Aluminium Clutch Plates

Sure, they're bright and shiny, and work just fine for road touring bikes, but they're not tough enough for extended motocross use. For one thing, they don't hold up as well as steel plates, which are heavier, but more durable. The drawbacks of aluminium are two-fold: fist, since they wear more quickly than steel, they leave metallic deposits in
the oil, which hastens mechanical wear. Secondly, aluminium warps easily when subjected to the high heat generated during a moto.

Sixth, Resurface Ageing Clutch Plates

There's no sense in buying new plates before you have to. As the plates begin to age, they build up a glaze layer on the surface which makes them slip more noticeably.
When you begin to notice this slippage, bring the plates back to life by taking out your fiber clutch plates and use a sanding block to remove the slippery glaze. Once you notice the glaze gone, clean them well and reinstall them.

Seventh, Don't Set your Clutch Lever too Tight

Don't make the common mistake of adjusting your clutch lever too snug. If you do this, you're just asking for trouble. It should have a wee bit of play in it. How much? No need to get too technical. Just set it so that a quarter will slide between the lever perch and the lever without the clutch cable being taught. If you're a bit low on funds and don't have a quarter on hand, just use your house key!

Eighth, How to Care for Your Clutch Basket

Have you ever wondered how your clutch plates operate when the case is sealed and you can't see the action?

There's an aluminium basket in there with just short of a dozen tangs. These tangs are what your clutch plates slide up and down on. As you can imagine, there's quite a bit of wear and tear going on there in the heat of moto battle. In particular, it wears notches in the tongs. The end result of this is that the notches get in the way of clutch plate movement.

To maximize the lifetime of both the basket and the plates, use a file to take the notches out. Of course,by doing this, you're contributing to the wear and tear because the plate movement gets sloppier, but extending the life of the basket and plate is worth it.

Ninth, Sooner or Later You'll Need new Plates

Clutch plate life, like all good things, eventually comes to an end. How can you tell when it's time to retire them? Measure the thickness. You can ask your dealer or consult your user's manual for the proper specs. If they're too thin, change 'em out!

And Tenth, Give Yourself the Gift that Keeps on Giving

Nothing says quality to a moto aficionado like a Hinson clutch basket. It just doesn't get any better. They also make clutch hubs and plates if you want to go for the whole enchilada. But what makes the Hinson basket so good? Engineering, in a nutshell. Hinson takes the next step in extending clutch plate life while dissipating friction heat by providing windows through which the oil is forced.

Read more about Hinson at **http://www.hinsonracing.com/**

MOTOCROSS FITNESS TIPS!

BEAT FOREARM PUMP

Are you having problems with forearm pump? You're not alone. Follow these tips along with your regular motocrosstraining program to minimize this problem.

- Emphasize your forearms when you do your pre-ride stretching routine. Tight muscles in this region will just exasperate forearm pump. The best way to perform this stretch is to be sitting on your bike; that way you'll target the forearm muscles just right. So start by assuming your normal position on your bike. While holding your arms straight out with your hands turned up at the wrist, lower your arms far enough so that your fingertips are touching the center of the grips. Slowly push against the grips with your fingertips. Hold for one minute. Relax. Repeat until your forearms are loose.

- Proper control configuration. It's very important that all controls are properly configured and maintained that way exactly all the time. Both your clutch lever and front brake lever should be in a direct line with your forearms when your body position is poised to attack. Bottom line – you must be ergonomically correct all the time.

- Part of your training is to ride on a regular basis. We're all busy these days; no doubt about that. But the fact of the matter is that that you and your bike must be best friends to function as a unit. Your body must remain conditioned and fluid.

- Are your grips too big for your hands? The fact of the matter is that most motocross riders use the grips from the factory. They will do a lot of customization to the rest of the bike and never give a thought to the grips. But the right size grips can be a maker or breaker when it comes to muscle fatigue and form.

- Get warmed up and stay that way. Warm up early and stay that way. When you cool off too much, your muscles tighten up. If you get on your bike in that condition for a training ride or to race, you're asking for trouble.

- Don't use "death grip" tight gloves. This tip dovetails into the last tip. You've got to keep your blood flowing. If not, you risk muscle pulls, loss of flexibility, and impairment of your nerves. Your nerves are a feedback mechanism. Don't compromise them.

- Finally, give those forearms a workout. Buy yourself a hand spring exerciser. Squeeze it rhythmically for one minute with one hand and the switch to the other. Repeat. Make it a habit by doing it along with another activity, such as when you're watching TV.

Another exercise that helps is this: put a comfortable amount of weight on a barbell. Sit on a bench with your arms resting on your legs and wrists 4" beyond your knees, palms up. Holding the barbell with both hands, just curl your wrists repeatedly. Flip your arms over and curl your wrists the other direction.

All riders will experience forearm pump; it's a fact of life whether you've been riding a week or ten years. When you ride, focus on remaining fluid and loose. This is one of the best ways to control arm pump after you've prepared with the above tips.

THE MENTAL GAME OF MOTOCROSS:

It's race time and all the intense preparation is over. You have trained hard, are confident with your pre-moto practice, have set up your bike for the track, and studied the track to find the fastest lines. You have done everything to prepare for the moto, but suddenly as you sit on the start line for your moto to start, a little voice in your head starts to question your ability and cause you to think about the fast guys lined up next to you. You have trained are prepared your best, but the one part of your game—the mental game—you left to chance and are now uncertain on the line, just at a time you need to be focused, confident, and in control of your thoughts. As Ricky Carmichael says, you are in a mental rut before the gate even drops.

Once all the training, bike tweaking, and practice is complete, the most important part of racing is your mental attitude or mindset. And this is the area that I teach racers—how to tune up the mind for races. The more I work with racers, the more I realize that race teams and Motocross families neglect one of the most important parts of racing: mental toughness and a confident race attitude. It's the racers thoughts and feels that determines his or her ability to perform up to one's physical potential on race day.

I think Motocross racers should take heed—if you work on your mind as much as you work on your bike, you would get in the winner's circle more often or at the very least have more consistent results. The most challenging part is knowing what to work on to improve your mental toughness and attitude and how to apply it to racing.

What are the important mental skills racers need to develop so they can boost their mental horsepower? Every racer I work with is unique with different challenges, but there are a few basic mental game skills that Motocross racers need to master to get to the top of their class.

The first and foremost is confidence. If you doubt your skills or ability at the wrong time, you are ready for a healthy dose of confidence. You know the confident type—the James Stewarts of the Motocross world for example who have a total conviction and belief in ability. Yes, confidence does come from success and winning, but how do you get onto the podium if you don't first believe you can? I teach racers to take responsibility for their confidence by fueling their confidence in staging and teach them skills to battle those malicious doubts that pop into a racer's mind at the wrong time.

A close second to confidence is the ability to focus like a champion.

Performing in the zone is what all athletes relish. You can't bottle the feelings you have when in the zone, but you can train your mind to develop a zone focus so you are dialed in when the gate drops. Distractions are a normal part of the sports world. The
racer who learns how to refocus when distractions happen and maintains focus on what is important will beat most racers who get sidetracked by distractions.

The best athletes in the world strike a balance between two contrasting mindsets that are equally important for success in any sport. These are a practice mindset and a race mindset. In the practice mindset, you work on technique and improve your riding skills in corners, on the jumps, and on the bumps. The training mindset is necessary to improve your skills, work on drills, and train the body off the track to get stronger. The race-time mindset allows you to race your best and is necessary for peak performance. Ricky Carmichael was the best in motocross because of his work ethic and dedication to training. However, he also is a "gamer" and has the race-time mindset down pat.

The ability to perform naturally and instinctively is critical to motocross success. The reason why you practice, go to racing schools, and work the same turn 100 times in a row is so you can trust it when race time comes. When racing on instinct, my Motocross students call this state as being "in the flow," "in a rhythm," or "just reacting." All the practice you do must be put aside when you race so you can now "just do it" and put your brain on autopilot. I spend a lot of time with my student to help them trust and get into the race mindset.

The fourth skill your must master to avoid arm pump and brain fade is the ability to relax and try less when you want to win badly. Under pressure or at national events, the tendency for some riders is to tighten up and try harder. Trying too hard to go fast can cause you to lose your natural rhythm and flow on the track, which actually leads to small mistakes that slow you down. This messes up timing and throws off your natural rhythm and for some can cause arm pump. The goal is to be able to ride as fast as you can in practice as you do with your buddies. Stop trying to race the perfect, mistake-free moto.

Another sign of mentally tough racers is the ability to handle errors with composure and patience. Some of my students have a hard time letting go of errors early in a moto and thus are stuck in a mental rut. I teach racers how to let go of errors quickly and not over-analyze mistakes. Analyzing your faults or errors will only keep you stuck in the past. The goal is to let go of errors quickly and put them behind you so you can race the current section of the track with composure and focus.

Finally, your mental prep for a moto is just as important as your final bike prep. This again is where my expertise comes in. You have to tune up your mind to get your game face on so you can compete at your peak consistently.

What things should you do in the final mental prep? Most importantly, you MUST commit to a race plan before you get to the line. This is not the time to be wishy-washy or indecisive! Commit to your race plan before you get to the line by using your practice and observation or other motos. Be confident in your plan for the start and what lines you will take on the turns, jumps, and bumps. This might change when you get out there, but at least you HAVE a plan for the first lap or two.

Don't forget to have fun with your racing. Pressure and expectation (parental on self-induced) will only cause you to tighten up and slow down. Remember why you started to ride in the first place—because you love the feeling of hitting that jump just right or hauling around a corner with ease.

To get mental confidence and mental toughness of Ricky Carmichael. Visit the link below: Peak Performance Sports

AGILITY TRAINING

Most weekend warriors and even top level amateurs are into other sports besides motocross. Agility, like strength, endurance, and flexibility is a component of fitness that transfers from motocross to other sports. One great thing about motocross; if you are in shape to ride you will see some, if not all, of that physical aptitude carry over to other sports.

Ok, so if you are a 300 pound lineman or Sumo wrestler, the cross over characteristics are slim but any other sport requiring speed, quickness, endurance, strength, and agility will have similar cross over traits. Most riders know how to train for strength, improve their cardio, increase their endurance, and understand the importance of flexibility.

Unfortunately, agility has been overlooked and forgotten by a lot of riders and trainers, and that's a shame. Agility is one of those traits that is not only vital to you as a motocross athlete but other activities as well. The mobility, balance, and stability it provides will help you stay on your feet throughout all aspects of your daily life and racing.

People don't think about it because developing agility isn't quantifiable; you can't measure it in terms of strength (how much more weight you can lift) or speed (how many seconds faster you can run). But without an agile body, you're one swap, fall, or evasive maneuver away from serious injury.

Here's the good news: Agility takes only a couple of minutes to develop and can easily be tacked onto the end of a row, run, bike ride, or strength workout. The square drill, for example is an easy way to get started. At first you'll be shocked at how immobile you've become over the years compared to when you ran around as a kid in high-school or college. In fact, even the fit can lose their agility.

Have you ever had the opportunity to play any other sport with a really fast rider? Well I have and I am always amazed at how un-athletic some of these guys are. Now imagine taking those same stumbling riders and turning them into good all-around athletes. Their speed on the track would surely benefit. I have even seen guys who aren't particularly fast on a bike but excel at road cycling, mountain biking and marathons, have trouble with athleticism.

Presented with the square drill, many are surprised to find out that at first they can only walk their way through the drill—they don't have the stabilizer muscles or neuromuscular connections built up that will let them make sudden movements at full speed. Fortunately, it doesn't take long for their bodies to get the hang of it, and they can feel an improved sense of coordination and balance making them a more surefooted trail runner and smoother mountain biker. The same holds true for a racer.

As your agility improves, you'll find out how much easier an exercise becomes, but more importantly the simple tasks in daily life, like bending to hoist a computer bag, getting out of a car, or maneuvering through doorways while balancing a briefcase, cell phone, and coffee will suddenly seem easier. Complete the square drill below three times a week. Do 3 circuits around the square as quickly as possible, catch your breath, and repeat for a total of 3 sets of 3 circuits. As you become more capable, shorten the time between each circuit by 15 seconds, until you can eventually run through 10 consecutive circuits.

SQUARE DRILL

1. Place four cones (or piles of clothes, water bottles, etc) in a 5x5 foot square. Start by standing at one corner with cone (1) at your left foot, facing down one side of the square toward cone (2).
2. Run forward to cone (2).
3. Shuffle sideways to your left to cone (3).
4. Run backward to cone (4).
5. Shuffle sideways to your right to cone (1).

The Square Drill is just one of hundreds of drills that can be used to improve your agility. I recommend doing a Google search on "Agility Training Exercises" or "Agility Ladder Training" and check out some of the websites that are completely dedicated to Agility training. I have looked at most of them and the exercises presented are perfect for the motocross athlete for both the pre and in-season portions of their training. Don't feel like searching; then check out expertvillage.com for some great videos that you can add to any of your workouts orSports Fitness Advisor for some agility ladder drills to get you started. So whether you decide to make an entire routine of nothing but agility drills or simply add a drill to the end of your workouts, agility should be a part of your motocross training.

The ABC Ladder is a simple and effective training tool that has withstood the test of time. These factors all contribute to its popularity among team sports trainers and coaches.

NUTRITION FOR MOTOCROSS, PART 1

Motocross is a high-energy sport offering competition of mind, matter and machine . It requires sharpness, skill and strength to endure stretches as long as 40 minutes. Motocross involves serious physical capabilities, such as control of the bike with the thighs. Just as important, however, is the discipline to eat right so the body will have the stamina and physique you desire to perform on the terrain.

NUTRITION AND MOTOCROSS

The benefits of good nutrition for motocross racers may seem obscure, but they are important. In order to get the most out of training, racers must adhere to a good nutrition program. Like it or not, what is done in the kitchen is just as important as practice and hitting the gym. Unlike other sports, the rider alone receives the glory of the finish line. Defeat is just as personal. Don't let poor nutrition be the obstacle
between you and the glory.

NUTRITIONAL GUIDELINES

Because Dirt Soldiers MX understands the energy systems involved in racing, we have developed strategies to fortify a racer and ensure optimal performance. The recommendations are speculative, but the general guidelines are based on scientific evidence.

The guidelines are as follows:

- Eat approximately every three to four hours to maintain insulin levels and aid in physical and mental recovery.

- Eat complex carbohydrates (starches) at a ratio of five to seven g/kg bodyweight (2.3-3.6 g/lb bodyweight) (1). For example, a 70 kg (154 lb) male needs 350 to 560 grams of carbohydrates per day, depending on position (i.e. goalies would need 5 g/kg bodyweight). Starchy foods such as pasta, wheat bread, whole grain cereals, brown rice, potatoes, yams, sweet potatoes, and vegetables provide a major energy source to fuel your activities.

These foods are also a source of fiber, vitamins, minerals and phytonutrients – the health protective substances in plant foods.

- Choose protein sources at a ratio of 1.2–1.6 g/kg bodyweight (0.54-0.86 g/lb bodyweight) from turkey, chicken, eggs, fish (although cold water fish have higher fat content, these are much needed healthy fats), lean cuts of beef, tofu and low-fat cottage cheese (1).

- Choose healthy fat sources from nuts, avocadoes and cold-water fish. Eat 40 to 100 grams of fat per day. If you do not get enough of these, take an essential fatty acid supplement or fish oil supplement (one to two tablespoons each day).

- Keep drinking water or sport drinks to maintain hydration while training. Try to avoid water-like substances such as Kool-Aid, sodas, juice or lemonade. Although these may contain water and some carbohydrates, they also contain a greater amount of the wrong type of carbohydrate source (sucrose and/or fructose), which can ultimately lead to gastrointestinal (GI) distress (i.e. diarrhea) and decreased performance.

- Eat a diet that consists of a wide variety of foods by keeping in mind the basic food groups. It is the best insurance for getting needed nutrients.

- Consume 25 to 35 grams of fiber per day among the foods that you eat. High fiber foods include whole grains, vegetables, fruits, and cereals. Read labels and be aware of fiber content in everything you eat.

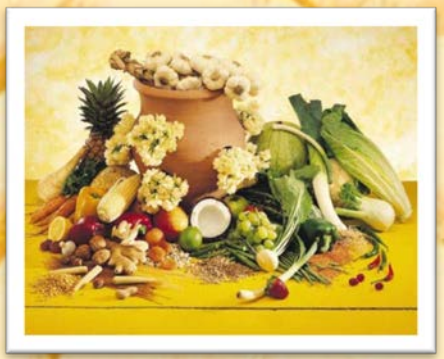
- Avoid high-fructose corn syrup and excessive table sugar, even when trying to gain weight. These include candy, juices, desserts, baked goods, etc.

- Use meal replacement shakes, fruit smoothies or bars whenever necessary. Always keep bars available such as in a book bag, purse, glove compartment, locker, or wherever poor nutrition might be the alternative such as at a competition. Try an assortment of brands to see which you like.

- Take a multivitamin/mineral supplement from a reputable brand.

- Before going to bed, eat a light snack such as peanut butter on whole-wheat bread and a glass of skim milk.

- Only certain supplements may be beneficial for a motocross racer.



NUTRITION FOR MOTOCROSS, PART 2

Daily Nutritional Needs

Exceptional motocross racers require a high-carbohydrate (CHO) diet to maintain stamina. Stored carbohydrates (i.e. muscle and liver glycogen) are the primary fuel for energy. When stores are low, focus and timing begin to suffer. The further aim is to do this while maintaining a high strength-to-weight ratio. With all of those dollars spent designing a light machine, it does not make any sense to place a fat driver in the seat!

For athletes, the American and Canadian Dietetics Associations recommend 55 to 58 percent of calories be CHO, 12 to15 percent protein and 25 to 30 percent fat (1). These are the same requirements for sedentary individuals. However, there has been a growing body of evidence that protein and fat requirements may need to be altered for active individuals, especially when15% of the diet is protein (2,9,10). In order to avoid muscle loss, the protein and fat requirements have been slightly altered here for the recommended training diet as described below.

The Training Diet – your daily nutritional plan

The recommendations of the training diet suggest that a meal should be comprised of 55 to 60 percent CHO, 20 to 25 percent protein and 20 percent fat. The goal of the training diet is to provide adequate energy for recovery and tissue repair quickly and efficiently, without adding body fat. For simplicity, if you ate 2,000 calories a day, 55 percent of that is 1,100 calories from CHO, which is equal to 275 grams of carbohydrates (there are four calories of CHO per gram; thus, 1100/4 = 275 g of CHO per day. For protein, there are four calories of protein per gram also). For some it is easier to keep track of grams than calories.

Protein

Some research suggests that protein should be 1.6-1.8 g/kg bodyweight (bodyweight in kg = bodyweight in pounds /2.2 kg) per day (9) or as high as 2g/kg bodyweight per day in athletes (10).

The Recommended Daily Allowance of 0.8g/kg bodyweight per day protein is based on what is healthy for the average sedentary individual, which is not necessarily enough for athletes.

The additional protein is crucial not only for muscle repair, but also as an additional energy source. During time of intense training, the body may start using its own muscle as an energy source. Because muscle mass is difficult to build and maintain, athletes should be careful not to lose it.

Fat

Keep fat intake to about 20 percent of your total calories, consisting primarily of essential and monounsaturated fats. Essential fatty acids are a type of fat that the body cannot create from fish and walnuts. Monounsaturated fats, which are fats with one binding site, can come from olive or canola oils, seeds and/or avocados.

For someone consuming 2,000 calories a day, the fat intake should be about 400 calories. This is equal to about 44 to 67 grams (each fat gram contains nine calories).

You may be tempted to ingest as little fat as possible, however, this is also unhealthy. Keeping your fat intake to less than 15 percent may have a harmful effect by inhibiting absorption of those vitamins that dissolve in fat, and it has no effect on improving your body fat percentage.

Pre-Moto/Exercise Meal

The primary purpose of the pre-moto meal is to offset fatigue during the race There is no one-size-fits-all prescription because different people react differently to the same foods. Athletes should try to find food that won't cause GI distress and will help to maintain focus and endurance. A few guidelines:

• Eat low-glycemic foods, such as whole grain cereals, certain fruits, sandwiches made with whole wheat bread,etc., approximately two to three hours before a competition. The closer to your match, the smaller the meal. This will help sustain blood-sugar levels.

• Keep protein and fat intakes low because they slow digestion.

• Avoid bulky foods, like raw fruits and vegetables, dry beans, peas and popcorn, which can stimulate bowel movements.

• Avoid gas-forming foods such as vegetables from the cabbage family and cooked dry beans.

• Drink 400 to 600 mL (14 to 22 oz) of fluid two to three hours before exercise depending on tolerance (1).

• Do not try new foods just before a match. Eat foods familiar with your digestive system.

• Some athletes prefer to use their favorite foods, which may give them a psychological edge.

Post- Game Meal

DO NOT FORGET the post-game meal!

Consume 1.5 g/kg bodyweight of CHO-rich, low fiber foods and beverages within 30 minutes or as soon as possible after a game and again every two hours for four to six hours to replace glycogen stores (1). This may be difficult when traveling, but failing to do so will encourage under-recovery and potential muscle wasting.

After physical activity lasting longer than an hour, the body best restores lost glycogen when carbohydrates and protein are consumed together in a ratio of 4:1 or 3:1, rather than simply consuming carbohydrates alone (6,7,8). Furthermore, the combination of CHO and protein has the added benefit of stimulating amino acid transport, protein synthesis and muscle tissue repair, all of which will further speed recovery and re-energize you for your next competition.

Products such as Endurox R4 by Endurox and Recoverite by Hammer Gel will provide both nutrients. When in a bind another option is drinking 20 oz. of low-fat chocolate milk post-exercise.

It is better to consume the "meal" as a liquid in order to facilitate recovery faster, and follow with a variety of whole foods between two and four hours later. Return to the normal Training Diet at the next meal.

Alcohol

The temptation of binge drinking may come after a race for a celebration of victory or a gathering to ease the pain of defeat. A sensible amount will not hinder performance or health, but alcohol intake can interfere with post-exercise recovery. You need to know what "a sensible amount" is for your own tolerance. In general, this means one drink for women and two for men.

But alcohol intake can interfere with the game and post-exercise recovery (3-5). Get a post-exercise meal and fluids in first before drinking any alcohol. This way, less alcohol will have a tendency to be absorbed into the bloodstream and pass into the small intestine with the rest of the food.

Avoid any alcohol 24 hours post-exercise if you have any soft tissue injuries or bruises.

Alcohol and injuries are a bad combination, and it may actually increase swelling, bleeding and delay recovery (3-5).

4 MOTOCROSS FITNESS

Skills First:

Motocross is a dynamic sport that requires extreme skills. Many conditions on the track present challenges for which riders must practice for hours on the bike. These conditions include coming off the starting gate and stealing a hole shot to the first turn, which requires partial luck and tremendous skill. Through the first turn choosing the right position, speed and placement within the pack demands further skill because this is the danger zone that often determines whether a rider continues with the race or goes down, often in a heap of other fallen riders and their bikes, losing so much distance that winning is virtually impossible. Throughout the course are numerous other conditions that, without sufficient skill, will slow the rider or will take him or her down completely: Cornering through different and often nasty surfaces, riding through ruts uphill and downhill, negotiating through tight turns, navigating through obstacles, attacking jumps of all kinds, taming uneven whoops, and tackling aggressive drop offs.

And still for each of these course requirements are numerous styles of executions, all of which are specific skills that can only be attained by spending endless hours on the bike.

Freestyle Motocross, which requires amazing and extreme maneuvers while flying through the air on the motorcycle, is a related sport that demands similar yet very aggressive skill sets. Like motocross, the rider of freestyle must put in countless hours on the bike in order to participate in this relatively young and exciting sport.

A Physical Sport

Aside from skills, however, the rider in motocross must possess physical fitness in the form of strength, power, flexibility and endurance. These fitness qualities enable the rider to perform with better ease, greater conservation of energy, and less injury risks. Greater ease during performance allows the rider to concentrate on technical maneuvers, while energy conservation gives the rider the physical and mental advantage at the end of the race or during the last few laps. Lower injury risk not only prolongs the rider's participation in the sport but also gives the rider better opportunity to improve (when you're inured, you can't ride; when you can't ride, you can't improve).

As bikes get lighter and faster, skills and physical fitness must be kept up. Spending time on the bike will develop skills, but training off the bike will develop the kind of fitness that will put a more athletic body on the bike. The fitness training program for motocross racers focuses on increasing total-body strength, total-body power, flexibility, and endurance.

Strength:

Strength improves the rider's capability to handle the bike and allows the rider to easily maneuver his or her own body in relationship to the bike. Structural strength of the body, especially in muscles, bones, joints, and connective tissues, increases protection of the rider during hard landing or crashing.

Power:

Power allows the freestyle rider to manipulate the bike or his body on and around the bike with lightning speed, which means he can complete tricks or maneuvers effectively. For example, a Double Can-Can, where both legs are whipped to one side of the bike in midair and then returned to the foot pegs before landing, requires fast movement of the body. In fact, in the Pendulum, where both legs are whipped not only to one side but to both sides of the bike and then returned to the foot pegs, requires tremendous power and speed.

The more explosive the rider can throw his body into position for the pendulum, the father and longer he can extend his body, thus earning higher scores. In almost any midair trick, the quicker the rider can move into position, the more complete and impressive the trick appears -- almost as though the hang time is indefinite!

Power also plays a critical part in motocross and Supercross racing during jumping and landing, especially in those jumps where the rider squats explosively into the bike (on the face of the jump) to compress the suspensions and then using rebounding for extra lifts, while in other jumps where the rider, once in the air, must allow the bike to be "sucked up" into the body to minimize jump height and distance, as to not lose speed. And power is equally important where quick maneuvers must sometimes be made to correct a technical mistake.

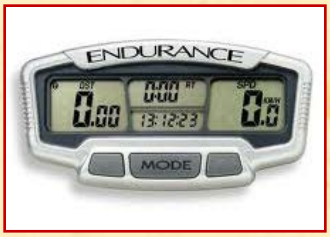
Flexibility:

Flexibility gives the rider more freedom of motion, especially while performing tricks in freestyle motocross. With more flexibility, the rider can place his body into extreme positions, always a crowd pleaser and commanding of high scores.

This flexibility also serves the motocross racers, too, such as during those times when the racer loses balance on the bike, throwing his body into extreme and odd positions, but somehow still manages to recover and stay on the bike and on course. Research has not shown that flexibility decreases injury risks, but if it helps the rider be more proficient and more agile on the bike, it may indirectly decrease the potential for injury.

Endurance:

The endurance to last gives the rider mental sharpness and physical ability to perform at his or her best through the entire race or to perform runs after runs. Less technical mistakes can occur, optimal body positioning can be assumed, good handling of the bike can be maintained, and safety can be maximized.



A properly designed endurance training program using intense circuit-style training is superior to the common, steady-state aerobic exercises such as running or riding a stationary bike.

The Motocross Workout:

Some core exercises include whole-body lifts such as:

- Deadlifts for total body strength
- Squats for leg and back strength
- Power Cleans for explosive legs and trunk
- Clean Pulls for explosive legs and upper body
- Pushups for upper-body strength
- Power Pushups for upper-body power
- Pull-ups for upper back, arm and shoulder-girdle strength
- Medicine Ball Throws for powerful abs and back
- Circuit-style lifts for incredible physical and mental endurance

Through the proper design of exercises, the Motocross Workout program addresses all physical requirements in the most optimal way possible. The target areas for the motocross rider are the legs, back, shoulders and abs. We believe that having a stronger, more athletic body allows the rider to have one less thing to worry about while on the bike, so that focus can be placed fully on winning.

STAY HYDRATED

Are you feeling it? It's getting a bit warmer under your moto outfit, isn't it? Spring is becoming a distant memory and summer's heat is upon us. In the thrill of racing and training, we often forget to drink enough fluids and that my friends will get us in trouble.

WATER, IT DOES A BODY GOOD!

It's just a fundamental fact that nothing is as good for re-hydrating the body as plain old water. It doesn't even have to be some fancy designer water, harvested from a frosty glacier by some H2O farmer (which can cost more than gasoline)!

But wait, you say, when I see one of my AMA idols gulping down a trendy energy drink as he accepts his award, shouldn't he know better? The fact of the matter is, he does! Nine times out of ten, the can is filled with the same water that you drink. This is product marketing, plain and simple. Cokes and energy drinks rely on caffeine as one of their ingredients to provide the kick. The direct effect is to make you eliminate fluids quicker than you can replace them. So if you must drink something other than water – go for Gatorade, or another beverage that replaces lost electrolytes.

CHECK YOUR DIPSTICK

No, obviously you don't operate like the engine in your car, but there is a way to visually gauge your body's fluids. Check the color of your urine. If it's uncharacteristically dark yellow that means you need to thin it out with some more water. The rule of thumb that is heard most often is eight glasses of water a day.

The fact of the matter is that that's all it is, a rule of thumb. When you're out there hammering out the jumps in the hot sun, you can bet you're going to need a lot more than that. And keep in mind that your gut can only absorb so much in a given period of time, so drink regularly, not just a huge amount at once.

HOW MUCH MORE DO YOU NEED ON RACE DAY?

More than you probably think. You're going to drink more not only because of the weather, but because of the excitement, the adrenaline rush, and the extra exertion of competition.

By the time you notice that you're thirsty, you're already playing catch-up. Ideally, you should drink water before you actually feel you need to and then keep it up.

But in case you're a numbers type of person, here's a formula to take to heart: during the course of the day, aim to drink, in fluid ounces, your body weight in pounds. In other words, say you tip the scales at two hundred pounds. Shoot for two hundred fluid ounces. Then go for it.

EAT YOUR BREAKFAST!

FITNESS TIP:

Eat Your Breakfast - I was bad at this many years ago, but I learned to fuel up early in the day. Eating a good solid breakfast to start your day helps supply you with the fuel you need to get started, especially if you are incorporating an early morning fitness program in to your day. You need the fuel to get your engine going in the morning. Do not starve your body early; because you may have the tendency to binge-eat later. Your body gets into the craving mode. Feed your body early!!

RACING WITH A BEER-BELLY

As we proceed through our twenties and on into our thirties, most people just accept the fact that they have "gained a few pounds" and go on with their lives without a second thought. However, did you know that not only is that excess fat around your belly hard to race with but in fact is more dangerous to your health than any other fat on your body Every single person on the face of this planet has the ability to lose that spare tire. It doesn't take special genes or genetic makeup to be "thin." The good news is that there is no secret formula. The bad news is, well, that there is no secret formula.

"There is no magic bullet, diet plan, specific food, or type of exercise that specifically targets belly fat. But the good news is belly fat is the first kind of fat you tend to lose when you lose weight," says Michael Jensen, MD, a Mayo Clinic endocrinology specialist and obesity researcher.

In general, your body shape is a reflection of both your genes and your lifestyle. Different people put on fat in different places.

Some people just naturally carry weight in their midsections (an apple shape) while others are more bottom-heavy (a pear shape). However, no matter what your body type , when you lose weight, you'll most likely lose proportionately more from the abdominal region than elsewhere.

"Ninety-nine percent of people who lose weight will lose it in the abdominal region before anywhere else -- and will lose proportionately more weight from the upper body," says Jensen.

"Visceral fat, the kind tucked deep inside your waistline, is more metabolically active and easier to lose than subcutaneous fat under the skin, especially if you have plenty of it," explains Penn State researcher Penny Kris-Etherton, PhD, RD.

And the more weight you have to lose, the more quickly you're likely to start losing your belly fat, experts say Can Certain Foods Help Reduce the Pudge?A recent study in the American Journal of Clinical Nutrition showed that a calorie-controlled diet rich in whole grains trimmed extra fat from the waistline of obese subjects.

LIST OF WHOLE GRAINS

Amaranth, Barley, Buckwheat, Corn (including whole cornmeal and popcorn), Millet, Oats (including oatmeal), Quinoa, Rice (both brown rice and colored rice), Rye, Sorghum (also called milo), Teff, Triticale, Wheat (including varieties such as spelt, emmer, farro, einkorn, Kamut, durum and forms such as bulgur, cracked wheat and wheatberries), and Wild rice "Eating a diet rich in whole grains while reducing refined carbohydrates changes the glucose and insulin response and makes it easier to mobilize fat stores. Visceral fat is more metabolically active and easier to lose than subcutaneous fat, especially if you have plenty of it and the right conditions are met, such as the ones in our study," says Kris- Etherton.

When you eat refined foods like white bread, it triggers a series of events, starting with elevated blood sugar levels followed by an increased insulin response, which can cause fat to be deposited more readily. But eating a diet rich in whole grains (which also tend to be higher in fiber) helps improve insulin sensitivity. This, in turn helps the body more efficiently use blood glucose, lowers blood glucose levels, and reduces fat deposition.

What about eating monounsaturated fats? A recent diet book called, The Flat Belly Diet postulates the idea that you can lose belly fat by eating a 1,600-calorie diet rich in monounsaturated fats.

Most foods contain a combination of different fats. Examples of foods high in monounsaturated fats include vegetable oils such as olive oil, canola oil, peanut oil, sunflower oil and sesame oil. Other sources include avocados, peanut butter, and many nuts and seeds.

This only goes to figure since most people will lose weight on a 1,600-calorie diet. And there is little question that when it comes to choosing fats, the monounsaturated fatty acids (MUFAS) found in avocados, nuts, seeds, olives, soybeans, chocolate, olive and canola oils are among the best choices, with proven health benefits, such as reducing the risk of heart disease.

But these are not magic foods capable of targeting belly fat. While the MUFAS are healthy fats, they are still fats, with nine calories per gram (the same as Trans and Saturated fats) -- more than twice that of carbohydrates and proteins, which have four calories per gram.

THE DANGERS OF A FAT GUT

Why is it important to lose belly fat? Carrying around extra pounds in your midsection is serious business. Extra weight in your midsection is more dangerous than fat around your hips and thighs, as visceral fat is worse for your health than the subcutaneous fat that sits under the skin.

"Extra weight around the midsection is associated with inflammation and a higher risk of health problems such as cardiovascular disease, diabetes, metabolic syndrome and more," Jensen says. According to a recent study in Circulation, belly fat appears to boost inflammation and is linked to hardening of the arteries.

Here is another fact: people with large bellies tend to lose sensitivity to insulin, a crucial hormone that helps the body burn energy. When insulin loses its power, the body responds by pumping out more of the hormone, which only throws the system further off balance.

As a result, people with extra belly fat are vulnerable to a whole cascade of problems known as insulin resistance syndrome or metabolic syndrome . The syndrome -- which is estimated to affect over 50 million Americans – comes with a frightening array of potential complications.

For one thing, people with insulin resistance often develop type 2 diabetes. They also tend to have high blood pressure and too much bad cholesterol, a recipe for heart disease, according to numerous studies.

Don't start worrying, though, if you only have "love handles" -- those are composed of fat near the surface of the skin. It's the visceral fat that wraps around organs deeper in the abdomen that appears to be metabolically active. The Bottom Line Most scientific evidence suggests that a calorie-controlled diet rich in fruits, vegetables, whole grains, low-fat dairy, beans, nuts, seeds, lean meat, fish, eggs, and poultry is the foundation for a diet that provides all the nutrients you need while helping to whittle your waistline.

The real secret to losing belly fat is to lose weight on a balanced, calorie-controlled diet and exercise at least an hour a day. A perfectly flat stomach may not be within your reach, but a healthier body certainly is. You can thank me on the podium after your next big win!

ADD INTENSITY TO YOUR PRE-SEASON TRAINING PROGRAM

As you get closer to the beginning of your racing season it is important that you increase the intensity of your workouts to prepare you for the actual intensity of racing. No matter what type of off-road racing that you do, it is important that you prepare yourself physically to be able to ride effectively and safely for the duration of the race. And, one of the most difficult aspects of training is to recreate the intensity of a race through training.

In this article I will outline some ways to increase the intensity of your workouts by using circuit training. Circuit training is a great method of developing both your muscular strength and endurance at the same time. In essence, you are "killing two birds with one stone".

CIRCUIT TRAINING

What is circuit training? Circuit training is a type of training where you set up several exercises and perform them one after another with little rest in between. The only rest that you get is the time it takes for you to move on to the next exercise. After doing one set of the 4 or 5 exercises that you choose (a circuit), you take a short rest – 1-3 minutes – then you repeat the circuit. It could be weight lifting exercises, bodyweight exercises, sprints, agility drills, or a mix of any of these together.

Regardless of the exercises that you choose, the main idea is that you limit your rest time between the exercises.When you do this, your body is forced to adapt, and your strength and endurance improve. This not only improves your physical fitness, but it also improves your mental toughness. When you have to push yourself beyond your comfort zone, you make yourself both physically and mentally tougher. This will come in handy at the end of a long, tough race.

You can also do this type of training with weights, but remember to use light weights and maintain proper form when you start to get tired. For example you could make a total body circuit using the squat or deadlift, incline or bench press, situps, leg curls, and pulldowns. You could also do separate circuits for upper body and lower body.

There's any number of variations to this type of training. Don't forget to work your core or midsection, as well as your arms, forearms, wrists, hands, and grip strength.

Again, the focus with circuit training is to increase aerobic capacity and muscular endurance as well as increase strength. When you use circuit training you are able to combine all of these elements of exercise into one workout. Just be sure to balance your exercises between upper and lower body work to create a total body workout. I would also recommend that you warm up and stretch your muscles before starting any form of exercise. This is important to avoid injury. Ten minutes of light activity such as jogging and stretching should prepare your body to begin the workout.

There are many different ways in which you could set up a circuit, but here are a couple of examples using bodyweight exercises and running:

Circuit #1 - Hill sprints + Squats + Pushups (you can substitute Stadium steps in place of a hill)

- Sprint up a hill (or stadium steps)
- Do 10-20 Pushups (and / or Situps)
- Walk / Jog down the hill
- Do 20 bodyweight squats or Lunges
- Sprint back up
- Repeat for several sets

Circuit #2 – Sprints + Pushups + Situps (you can use a track or run on a grass field)

- Sprint 50-100 yards
- Do 10-20 Pushups
- Sprint back

- Do 20 bodyweight squats or Lunges
- Sprint back
- Do 20 Situps
- Repeat for several sets

You can put together any combination of exercises that you like. You could substitute jump rope instead of running, or jump squats in place of squats, or use all strength exercises. Experiment and create what works best for you. If you are forced to work out indoors because of winter weather, rain, etc., then you can substitute jumping rope for the running and get a good workout.

Circuit #3 – (Indoor Workout) Jump Rope + Pushups + Squats + Situps + Pullups (if you have a pullup bar)

- Jump Rope 1 minute or 100 reps
- Do 20 Pushups (mix in different types of pushups)
- Jump Rope 1 minute or 100 reps
- Do 25 Squats
- Jump Rope 1 minute or 100 reps
- Do 5-10 Pullups (or Towel Pullups)
- Jump Rope 1 minute or 100 reps
- Do 25 Situps
- Repeat entire circuit for 2-3 sets (or more if you want)

These workouts will not take very much time, but you will get a good total body workout from them. Increasing the intensity of your workout through circuit training is an excellent method of preparing yourself for your upcoming racing season. This is also a great way to train for athletes who do not have much extra time to work out in addition to their riding.

Give these workouts a try as you get closer to your racing season, and you will see improvement in your overall fitness and conditioning. In turn, you will also see your racing results improve.

RACE FUEL FOR YOUR BODY

You know the race day drill – you get up early with a jolt of adrenaline in your veins; this isn't going to be another day at the office! You give your bike the once over for the third time. Everything tightened up? Check. You paw through your gear bag again. Everything squared away? Check.

Your gas can has been topped off so it's time to pack your ice chest with the grub and drinks that'll get you through the day. The question is, what are you packing it with? It's not junk food and sugar-laden snacks, is it? If it is, you'll be giving away your edge when the rubber hits the dirt.

What Kind of Food Will Give Me the Edge?

The answer to this question is, "It depends." Ever rider is different, so every rider's diet is unique. What works for Bob might not be the right mix for Nancy. But that being said, there are some definite guidelines that serve as a good starting point.

First, the primary ingredient in the mix is lean meat.

This includes turkey, skinless chicken, and lean cuts of beef. Add some seafood to round it out. Salmon is a particularly good choice. It contains fats, but they're the good type

Second, throw in fresh fruits and vegetables.

30 Eat organic if you can, not to be trendy, but because the mineral and vitamin uptake is greater and those pesticides aren't going to help you in the long run.

Don't forget dairy. You need strong bones when you ride and load-bearing exercise that riding is helps you to absorb the calcium that make that happen. Low-fat milk, cheese, and yogurt will help you in this department.

Finally, chow down on carbs. Whole grain bread and pretzels will give you a longer energy plateau than highly processed white bread. Have a sweet potato rather than a russet. Legumes such as lentils deliver energy for a longer, more consistent period than any other food. This is a fact from the glycemic index.

How do I Implement My New Diet?

Easy! Take a look at your current diet and the physical state you're in. Carrying a few extra pounds? Most of us are. But don't rely on weight alone; this is a poor assessment. Instead, rely on fat percentage. Male rides should be around twelve to fifteen percent, just a tad more for females.

The best way to monitor this is to buy a digital scale that also analyses your fat percentage. You can find one in most sporting goods stores.

When are the Best Times to Eat?

Breakfast is always your most important meal of the day. Your body is hungry from your snoozing hours. Also, breakfast gets your metabolism in gear and cranked up. What are the best foods for this meal?

You need protein (eggs, Canadian bacon, or sausage), high fiber carbohydrates (whole wheat toast, bran cereal with milk, etc.), and fruit juice (orange, prune, tomato, or grape). This is also a perfect time to take your multi-vitamin.

You should also have a mid-morning snack, a moderate lunch such as a sandwich and soup, a mid-afternoon snack, and finally, a well-rounded dinner. The idea between spreading the food intake like this is to keep a steady energy burn. It eliminates sugar rushes and subsequent sluggishness.

What About Race Day?

Isn't this a special situation? Indeed it is. You're going to be excited, as you well know. This means it's more important than ever to have a healthy breakfast with an eye to high glycemic index foods. This is an occasion where what works well for some doesn't for others.

For example, what works for me is a bowl of lentils and wild rice topped off with a couple of eggs and hot salsa. Don't laugh! What works for you will most likely be different, so experiment and enjoy!

You might want to go light on the coffee. If you enjoy morning coffee on a daily basis, don't avoid it altogether on race day, just half the normal intake. Cutting it out completely will result in a massive headache. Trust me. Been there, done that.

What About the Rest of Race Day?

This is where a lot of mini-meals come in handy. Fruit, whole grain bagels, cheese sticks, and plenty of water or sports drink. There's no real magic in sports drinks like Powerade or Gatorade, but they will replace electrolytes lost through sweat. Also, the taste will encourage you to drink more.

But here's one caveat – always eat and drink the same things that you do on training rides. Some riders make the mistake of believing the promotional hype of "sports super foods" and shell out extra bucks for them on race day.They don't do anything but confuse the body.

The prime time to snack and drink is immediately following one moto while you're waiting for the next one to start. Start changing your culinary habits now and you'll notice vast improvements in your performance. Buy yourself a scale, grab a chart of the glycemic index and start taking a multi-vitamin if you don't already.

CLAVICLE FRACTURES

CLAVICLE FRACTURES

Clavicle fractures are one of the most common motocross injuries seen by doctors. It's just one of the areas most likely to be injured given the nature of the sport. There was a time when most fractured clavicle injuries presented were treated without surgery; the tide is turning towards more aggressive therapy.

The clavicle is more commonly referred to as the collarbone and anyone who has broken one will tell you how incapacitating the experience is. The traditional treatment has been to put the patient in a sling and be done with it.

This approach might be fine for the sedentary person that ends up in this condition in a riding lawnmower incident, but for a sport athlete, the clavicle needs to be restored back to the original condition, ensuring balance and strength.

The clavicle is categorized as one of the body's "long" bones. This is regarded as being an asset in its ability to be isolated and easily healed. Generally speaking, a mild fracture may be treated with a sling for a week and followed by physical therapy to improve range of motion and stretch. Some clicking sounds may be heard, and while creepy, are normal and can be safely ignored.

After this period, the rider can begin to perform small (very small) feats of strength to begin regaining prior strength (think hefting a beer). Getting back to your original condition will depend on the severity of the injury and your exercise program (how many beers).

All fractures are not alike. Some will require minimal treatment and others will require much more intensive medical options. The X-Ray will determine the extent of the treatment needed. The end diagnosis may require a minimum of a sling to a maximum of surgery and plates and screws. The important thing to remember is that this part of your body has to be up to the stresses of motocross. Most doctors don't understand this so it's up to you to stress it.

COMBINING CARDIOVASCULAR AND RESISTANCE TRAINING FOR MAXIMUM BENEFIT

COMBINING CARDIOVASCULAR AND RESISTANCE TRAINING FOR MAXIMUM BENEFIT

Defining Cardio Training Cardiovascular training amounts to the same thing as aerobic training. The difference in the terms is that cardiovascular refers to improving heart health, while aerobic means oxygen-burning. Two semantic ways of approaching it, but the same result and activities. The idea is to get your heart rate up to 70% for proper results. Activities include cycling, running (distance, not speed work), cross-country skiing, power-walking, aerobic dancing, inline skating, and swimming, to mention a few.

Reasons for Improving Cardiovascular Health All the activities listed above may seem intimidating at first. After all, a body at rest tend to stay at rest, as Newtonian physics reminds us on a daily basis. But when you consider all the advantages cardio offers, it's well worth the effort.

Losing and Managing Weight. Ah, the Holy Grail of New Year's resolutions. Almost everybody would like to shed a few unwanted pounds, and cardio is one way to do it. As we age, the slower our metabolism gets. That means one of two choices: up the exercise load to raise metabolism, or kick back and pack on the pounds.

Emphasis on Physical Conditioning. It's a given for kids. They run around, jump, run, bike, and play. Alas, as we age we get serious about life and get away from playing. The next thing you know, just climbing stairs leaves you gasping. What happened? Lack of motion is what happened.

Lack of conditioning and loss of flexibility. But cardio is one way to return to the inner physical child, along with a healthy heart, strong lean muscles, plenty of energy, blissful sleep, and a strong immune system. So what's not to want?

Emphasis on Disease Prevention. As stated above, cardio boosts the immune system. But it will protect you from more physical demons than that. Consider diabetes which is linked to obesity and the sedentary lifestyle. Fitness is one of the components for controlling high blood pressure which is medically known as hypertension.

It puts you at a high risk for stroke. And let's not forget heart attacks.
Bolster Your Workouts with Resistance Training Now let's turn our attention to another component of a well-rounded fitness routine: resistance training. What exactly does that mean? In a nutshell, it's an activity that provides resistance to your muscles. Traditional methods are hefting dumbbells and barbells, but walk into your nearest well-equipped sports club and you'll see there's much more to it. There's a vast array of machines using cables and pulleys with weights or elastic straps to stress your muscle groups. And they're dedicated to individual muscle groups.

Why Add Weight Lifting to the Mix? I Already do Cardio! Because cardio will knock off the pounds, but it won't build muscle mass. Resistance training will. This is true for both men and women, although women won't put on as much mass as men due to the testosterone difference. (Viva la difference, as they say!) So don't worry ladies, there is a difference between toned and bulked-up. Not only will this keep you looking buff and younger than your actual years, but strong muscles, as long as you maintain balance between the various muscle groups, will also protect you.

Metabolism – A Different Kind of Booster. You already know that cardio raises your metabolism to burn more calories, resulting in weight loss and maintenance. Check your heart rate a couple of hours after a strenuous cardio session and you will find that it has returned to your resting heart rate. Not so with resistance training. Weights have
a permanent effect on your metabolism, as long as you continue your program, that is, and don't revert to a couch potato. Weight training breaks down muscle fibers and builds new ones to deal with the added workload.

How Muscle Mass Affects Metabolism. As mentioned above, weight lifting promotes more muscle fiber growth, there by "bulking up" for heavier weights with fewer reps per set. But it builds endurance and toned, compressed muscle mass when lighter weights with more reps per set. In either case, it takes more energy (calories) to move and even maintain the added muscle mass. This is happening 24/7, even while you're sleeping. So will you benefit from resistance training? You bet! Consider: on average, one pound of muscle consumes fifty calories per day. And the same amount of fat on your sedentary neighbor? A measly four calories. Would you rather have fat or muscle?

TRAINING FOR MOTOCROSS AND OFF-ROAD RIDING

Training for Motocross and Off-Road Riding

By Rodney Womack, CSCS

If you want to improve your results in motocross, enduros, hare scrambles, or any other type of off-road motorcycle or ATV racing, you need to maximize your strength and conditioning. When you develop a good training program that puts you in top condition, you will ride faster for longer periods of time, have less fatigue, improve your racing results, and, ultimately, have more fun. Improving your strength and conditioning will also improve your overall health, and, most importantly, it will help to prevent injuries.

However, many riders don't train properly, or train at all, other than their riding sessions. As a strength and conditioning coach, and lifelong off-road and MX racer, my goal is to provide you with some strength and conditioning advice that will help you to improve your fitness and strength specifically for your sport.

In fact, my specialty is creating home training programs which will help you improve your strength and fitness without having to go to a gym.

Some of you may already go to a gym to work out, which is fine, but there are many exercises and workouts that you can do at home, with little or no equipment, which will give you a great work out and help you improve your strength and fitness.

And, there's no better time than the off-season to start planning a training program to prepare you for the next racing season. So, let's get started!

Off-Season Training

Many trainers will divide up the year into training cycles or phases. The most common phases are off-season, pre-season, and in-season. We will first address off-season training, which is where many of you are at this time of the year.

First, off-season training should be utilized to heal up your injuries and address your weaknesses. If you've been injured make sure you are completely healed before embarking on a strenuous workout program.

Be sure to consult a doctor or physical therapist to determine when you can start your training program. Once you are cleared to start training, you need to pinpoint your strengths and weaknesses and set your training goals.

Before designing a training program you should take note of your weaknesses from your most recent races. Was your endurance a problem? Did you get arm pump? Are your legs weak? Is your upper body weak? Are you overweight? Etc. These are the types of questions you should ask yourself when creating a plan for next year's racing season. Once you establish your strengths and weaknesses, then you can design a workout plan that will create a complete athlete.

The first part of your off-season plan should be to establish a good conditioning base which you will build upon as your training program progresses. This is the time to start with some jogging, biking, swimming, etc. to condition your body before adding more strenuous activities to the program. Before you start any of these activities make sure you warm-up and stretch your muscles to prepare for your workout. This should also be done before you race.

If cold / wet weather limits you to indoor training, then you can use a stationary bike, rowing machine, treadmill, or jump rope. In fact, a jump rope may be the best way to get a good conditioning workout in addition to being the cheapest. Of course, there are many other exercises that you could do, but these are simple and will help you get started.

As far as strength building exercises are concerned, you can start with 2-3 sets of pushups, pullups, squats, and situps in addition to the endurance / conditioning work that you are already doing. Here's a sample beginner's workout that you can do 3-4 times per week to help you establish a good strength and conditioning base. This will help to prepare you for some more intense work to come later.

Beginner's Workout

- Jog in place for 5 minutes
- Stretching for the upper and lower body – 5-10 minutes
- Pushups – 3 sets of 10-20 reps
- Pullups – 3 sets of 5-10 reps
- Situps – 3 sets of 20 reps
- Bodyweight Squats – 3 sets of 10-20 reps
- Jog, Bike, Swim, Rowing Machine, or Jump Rope (or any other endurance / aerobic activity) for 15-30 minutes

This is a simple, but effective program. If you struggle with any of these activities, just do what you can, and try to add a rep or two to each workout. If the aerobic work is difficult for you, start with 10-15 minutes and add some more time at each workout.

Follow this program for 3-4 weeks on a consistent basis, and you will see some positive results. If it becomes too easy for you after a week or two, then add some more exercises, sets, reps, or time to increase the difficulty. If you are already in good shape, then go ahead and add more to the workout from the start.

This type of program should help you establish a good base of strength and conditioning. Bodyweight exercises are a great way to get into shape, and this type of workout will be beneficial to all athletes, regardless of their current level of strength or fitness.

Just adjust the workout to your individual preferences and fitness level and you will be on your way. Once you create a good base of strength and conditioning, then you can move on to some more advanced workouts with more resistance and intensity.

TRAINING DURING THE RACING SEASON

Training During the Racing Season

By Rodney Womack, CSCS

By now, if you have followed an off-season training program, you should be in good physical condition. If your racing season has already started then your strength and conditioning should be much improved from what it was in December or January. In a previous article about pre-season training, I talked about assessing your weaknesses before the season starts. Once you start racing on a consistent basis this process will continue. In fact, the focus of your in-season training should constantly address this issue.

In-Season Training

Once your season starts the focus of your training should be your riding. In order to improve your skills and riding endurance, you should be riding as much as you can during the week before the weekend's race. However, you still need to maintain a regular strength and conditioning program. This is especially important if you do not get to ride much during the week.

Of course the obvious question is – What type of workout should I do? In my book, Motocross Fitness, I outline several different sample weeks (examples) of possible workouts. In addition to your riding time during the week, you still need to include some endurance, flexibility, strength, and quickness training. This is a tall order when you are already spending time practicing your riding.

As previously mentioned, your in-season training priority still needs to be correcting your weaknesses.

In essence, you need to fine tune your workouts to fit your needs. If you are struggling with your endurance then obviously you need to do some more running, biking, jump rope, rowing, or similar activity. You can either, increase the number of times per week, or up the distance and / or time. The intensity of the exercise may need to be increased also to achieve the desired result.

If you find that specific muscles or muscle groups are tiring prematurely or are excessively sore after a race, then you probably need to work on those areas some more in your strength and flexibility program.

For example, if your back is sore then you may need some more stretching of the muscles in the area and some more strength work there. These are just some common sense ideas, but if you haven't had a consistent training program up until now, you may not have thought much about them. However, the question of training time can also be a problem. Not everyone has several hours a day to devote to riding or training. Therefore, it is imperative that you use your time efficiently.

For the average amateur racer I would recommend that you do some physical activity 4-5 days during the week. For example, if you are able to ride two days during the week then it would benefit you to train at least two other (three if possible) days during the week. Even if it is a quick 20-30 minute workout you will get some positive benefits from it. Do this several times a week and you will maintain the higher level of strength and conditioning that you achieved during the off-season. In fact, if your goal is to just maintain, rather than improve, your current fitness level, it probably won't take much more that a couple of days per week of a good workout program.

What kind of program should I do during my racing season? You need to put together a total body program that that stresses working your body as a unit, often called "functional training". This is the type of program that I have written about in other articles. If you train at home without weights you can do the previously mentioned exercises such as pushups (different kinds), pullups, situps, and squats. You can also include sprints, cycling, and jump rope.

These are all great exercises that will build strength and endurance. There are many other exercises that you can do without weights (described in Motocross Fitness) that you can do as well to get you into good condition.

Circuit training is also a fantastic way to maintain (and even improve) your strength and conditioning during the racing season. Just be sure to mix up the workouts every couple of weeks to avoid boredom and burnout on the same exercises and training program.

The main thing to remember during your racing season is to continue to train outside of your riding at least a couple of days a week. And, be sure to cover all of your bases with endurance work as well as flexibility and strength training.

It is important to train the entire body to work efficiently as a coordinated unit to insure that you are improving your physical fitness in addition to your riding ability. Not only will this approach make you a better athlete, but it will also make riding safer for you.

THE IMPORTANCE OF BALANCE

If you're into moto and you're serious about the sport, chances are that you're serious about the topics of injury, injury prevention, and maintaining or improving the state of your general health. This is especially true if you've been sidelined by an injury and ended up sitting on the sidelines with the spectators full-time. And if you haven't been injured – well, let's just say that the odds are following your every move. So let's take a moment to talk about these issues.

There's no doubting the importance of training in the world of motocross. Generally speaking, there's two components of the training topic. The first is riding. Like a bronc rider, you've got to put the hours in the saddle to improve. The other side of the training coin is physical training, keeping the body strong, flexible, and tough.

The most effective strength training program targets the sport or activity that the athlete is training for. Football players, for instance, will indulge in a completely different regimen than you will. The specific exercises you need are designed to promote balanced strength training in the areas that are most likely to be injured. For moto riders, these areas are recognized as being the wrist, knees, and shoulders.

By balanced strength training, we mean that opposing muscle groups should be strengthened and brought into balance. On the upper body, this means the triceps balancing the biceps and rounding it out with the helping muscles – the traps, the pecs, the deltoids, and the muscles associated with the rotator cuff. Keeping these muscles toned keeps the possibility of injury in check.

What's the consequence of imbalance in these muscles? You leave yourself open to injury – strains, sprains, and tears. But that's just the tip of the iceberg. If you're in the middle of a ride when an injury occurs, you risk taking a nose dive. That's where the really devastating injuries are likely to show up. Broken bones, getting run over, and trashing your bike. So get in the gym and get busy. Your body and bike will thank you!

VET KNEES

How To Train For Motocross When Your Knees Hurt Like Heck!

Ok, I guess this can be done easily with a mountain bike. There is always the low impact methods.The elliptical , stationary bike, but I want to focus on things you can do on the treadmill that are not as painful on the knees but give you a good workout.

See, I still like to go on the treadmill even though my knees are shot. I can't stand the stationary bike and the elliptical . This is for us east coast mx'ers who don't have full time good weather to just jump on our mountain bike and go for a ride. I should of moved west or south back when my knees were young.

This is actually good for anybody who has bad knees, east, west, south, or north looking to change up their routine. Here is a method I made for myself so I could workout and deal with my knee problems.

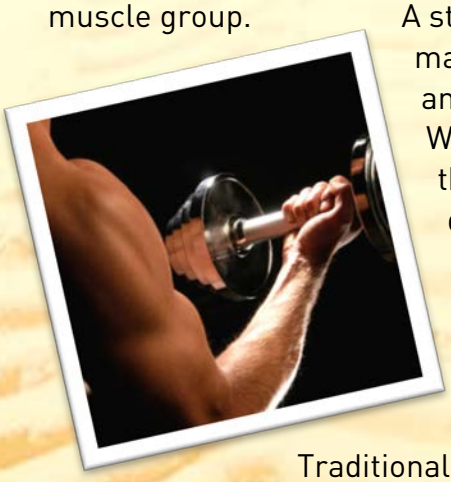
Treadmill Workout 1:

Start at speed 2.5 or 3 and put the height level to 3.0

warm up at this pace for 5mins. This is just a walk, very easy on knees.
After a 5 min warm up raise the height level to 5 and the speed to 3.5 or 4.0 do not go below this speed or above. Do this level for 1 min then raise the height to 6 and do for 1 min. Do this until you reach level 10 on the height of treadmill then go back to 5 on the height and do the process again. Repeat two more times this will take you to 23 min then go back to level 5 speed 2.5 or 3.0 and cool down for 5min. You never change your speed through the workout just the height. Give this baby a try. It is a good workout and you never have to run. Boy you will feel like you ran though, and your knees will thank you.

ABS

One of the most important muscle groups used by a motocross rider is the abdominal region. The abs are the cornerstone to any athletic training program and should be given serious consideration when training. The abdominal region of the body, including the lower back, is sometimes referred to as the core muscle group.



A strong core muscle group is responsible for maintaining good posture, eliminating lower back pain and acts as the base of support for the entire body. With strong core muscles, a rider can concentrate on the matter at hand while riding instead of being distracted by fatigue and weakness. Strong core muscles can help make you faster on the track as well as prevent injury. Unfortunately, working the abs is one of the most neglected body parts in most people's routines.

Traditionally, people have trained their core muscles by performing crunches and lower back extensions. Many variations of the crunch can be performed to strengthen the abs, including the obliques. Unfortunately, crunches alone do not provide enough stimulation to the necessary muscle groups for the demands of motocross. Proper training of the core muscles is imperative to maintain proper form and function during a race. If the core muscles are weak, the rider will alter his or her posture and riding position, therefore transferring work to the weaker shoulders and arms. When this happens, the arms, shoulders and even legs do more of the work and become fatigued quickly.

Late night television plays host to products and exercise videos that promise a more toned and fit midsection. And every person that has ever trained has their own favorite ab routine that they guarantee is the best. So what is the best ab routine for motocross? A new study sponsored by the American Council on Exercise (ACE), has revealed the best and worst methods for getting strong abs. The study covered traditional exercises like the crunch and basic sit-ups and also the ab equipment that is so ever-present on late night television. The findings of this study relate directly to building a strong core muscle group for the rider.

The study, which compared 13 of the most common abdominal exercises and ranked them from most to least effective, was conducted at the Biomechanics Lab at San Diego State University. Muscle activity was monitored during each exercise using equipment that measures muscle stimulation.

Activity was recorded for the upper and lower abs, external obliques, and hip flexors. The data for these muscle groups was examined by the researchers to help determine which exercise is the most effective.

Overall, the top three abdominal exercises were the bicycle maneuver, the captain's chair and the crunch on the exercise ball.

1. **Bicycle Manuver:** This exercise is performed by lying flat on the floor with your lower back pressed to the ground. Place your hands beside your head and bring your knees up to about a 45-degree angle and slowly go through a bicycle pedal motion. Touch your left elbow to your right knee, then your right elbow to your left knee.

2. **Captain's Chair:** This is one of the few "most effective" exercises on the list that requires gym equipment. Start with your legs dangling and slowly lift your knees in toward your chest. The motion should be controlled and deliberate as you bring your knees up and return them back to the starting position.

3. **Crunches on an Exercise Ball:** These crunches are performed by first sitting on the ball with your feet flat on the floor. Then, slowly let the ball roll backwards and lie back until your thighs and torso are parallel with the floor. Then tighten the ab muscles to curl and lift the shoulder blades off the ball to no more than 45 degrees. To work the oblique muscles, make the exercise less stable by moving your feet closer together.

Due to the fact that crunches on the exercise ball generated significantly less activity in the thigh muscle, therefore making it more targeted to the abs, the researchers deemed the exercise ball the best overall exercise for the ab region. Additionally, the exercise ball requires numerous muscles to work simultaneously. Some muscles are actually performing the exercise while others are required to stabilize the body.

The infomercial equipment was tested and found to be a waste of money. This finding was consistent with ACE's 1997 study of popular ab exercise equipment. It has long been ACE's (and the authors') opinion that expensive exercise equipment is not needed to effectively strengthen the abs. If you are going to buy any equipment, invest in a high-quality exercise ball, which retails for approximately $30.

In training for motocross, crunches on the ball should be at the top of your list for working the abs. The exercise ball is relatively inexpensive for home purchase and almost every gym across the country has some. This is perfect if you travel frequently and can't get to your local gym. If you can't find a ball to work out on, then obviously the exercise of choice would be the bicycle maneuver. No equipment required here; just some good old blood, sweat, and tears.

Two recommended exercises for the exercise ball are the crunch and ankle role. The crunch was described above while the ankle role is performed as follows: Start with your stomach resting on the ball with your hands and feet on the floor. Walk the hands out and allow the ball to role down your body while maintaining a pushup position. Keep your lower back straight by not allowing your butt to sag or rise. For an increased challenge, role the ball further down towards the ankles while maintaining stability.

Choose your exercise and perform at least 3 to 4 times a week as part of your overall workout. For the beginner, perform 2 to 3 sets of 12 to 15 repetitions. For the advanced, perform 4 to 5 sets of 15 to 20 reps.

MOTOCROSS SLEEP

We've all got out priorities in life, and if you're into motocross, this pretty much boils down to:

Is the bike ready and prepped?

Is my stuff ready?

Are my gas cans filled?

All these are important, but are you forgetting one of the primary things that can affect your race-day performance? If you answered sleep, then give yourself a brownie point. Otherwise, go to the back of the line.

You may think that you can get away with less than the recommended eight hours because "I feel OK," but don't be fooled, you need every bit that you can bank. Even if you're too pumped up to actually snooze, just laying there will get your physical recovery taken care of.

Why Sleep is Important

Sleep is one of the most important things that it's easy to put on the back burner. Doesn't the bike need another look-see? No! The minimum amount of sleep is recommended for the regular person but as an athlete, you're on a different level you need more rest and recovery.

Sleep enables body tissue repairs, allows cells to divide and repair themselves, and those overworked muscles get back to that fresh, new status again. If you don't sleep correctly, none of these benefits will be yours.

Just check the stats on the causes of auto accidents. What's at he top of the list? Alcohol. Next to that? Lack of sleep. So what does this tell you? If you skimp on the Z's, it's going to come back to bite you in the performance area.

When you're fully rested, your reflexes will be spot on to kick track butt, and keep you healthy for motos every weekend!

So How Much Sleep do you Really Need?

The experts have always told us that eight hours is the magic number for good health. It it right for you? Maybe yes, maybe no. It depends on many factors, including your age and how active you are. Try this: get yourself to sleep early and wake up naturally without your alarm clock. Record the time you slept. Repeat this a few more times and take an average. This will clue you in to your exact situation.

If you absolutely have to use your alarm clock on a regular basis, chances are you're not getting enough sleep. Adjust your sleep patterns so that you don't need that ringing, screaming device, and stick to the routine. Don't think that you can just catch up on the night before a big race. It didn't work before final exams either, did it?

But What if You Can't Get Enough Sleep?

It happens, despite our best intentions. Sometimes we get the adrenaline heebie-jeebies on the eve of an important race. Perhaps we're prone to insomnia. Shouldn't have eaten that last slice of greasy pizza?

MX FITNESS TIPS

Race Day Psychology

It's finally race day and all the intense preparation is behind you. You have trained according to your schedule, you are brimming with confidence, your bike is perfectly tuned, and you have memorized the track. It's all set up, but as you sit on the moto starting line, your brain starts playing tricks on you, and your confidence begins to waver.

This is racing's mental game, and it can kill your race. Racers are great about their training, bike maintenance, and practicing, but many of them disregard the mental maintenance. This aspect is just as, if not more, important than the others mentioned. It is precisely the racer's thoughts and feelings that determine his or ability to kick into high gear and deliver a peak performance on race day.

Motocross racers, a word to the wise: work on your mind as ruthlessly as you work on your ride. You'll be picking up a trophy more often or at least finish higher in the field more consistently. The trickiest part is figuring out what to work on to fortify your mental grit and attitude and then apply it to your game. So get started!

Which important mental skills do racers need to work on to boost their mental horsepower? Every racer is different with unique challenges, but a few fundamental mental game skills are applicable to boost everyone's game.

CONFIDENCE

Topping the list is confidence. If you have a habit of doubting yourself or ability on race day, you can surely use some work in this department. You can spot the confident ones such as James Stewart.

You can read the total conviction and belief in his inherent ability in his face. How do you think he got there? You have to believe you can before you can! You must first take responsibility for your own confidence to eliminate those pesky doubts that pop into your mind when least welcome.

FOCUS

Next on the list is the ability to focus like a true champion. Performing in that magic zone where everything clicks is what all athletes live for You can't put those feelings in your pocket when you find yourself in the zone, but you can train your mind to recognize a "zone focus" so you can be there when the gate drops.

Distractions are to be expected as anyone involved in a sport can tell you. You can't change that, but you can train yourself to refocus when distractions happen. This (and the ability to maintain focus) is one factor that separates the winners from the losers.

The best athletes will tell you that there exist two essential mindsets that you must master for success, regardless of sport: practice mindset and the race mindset. In the practice mode, you work on your technique and focus your riding competency on jumps, in the corner, and on bumps. The training mindset is your homework.

The race-time mindset is there to maximize your race performance and is a must-have for peak riding with the top dogs. Why do you think Ricky Carmichael is the best motocross racer? Part of it is his incredible work ethic and devotion to training. However, he also is the master of the race-time mindset.

The ability to be a natural performer and apply your skills without thinking is crucial to motocross success. That's why you go to racing school, practice, and slide through the same turn fifty times in a row just to get it fluid and right. It has to be there when the chips are down. You want everything to become "just a reaction."

SHAKING IT OFF

The next skill you must master to minimize brain fade and arm pump is the ability to just shake off the tension and get focused. Of course, it's natural to tighten up and try harder. But trying too hard to fly through the course can actually work against you. Your timing gets fouled up and your natural rhythm evaporates. It might even cause arm pump. You want to ride as fast as you can in a race, just as you do when you practice. There is no such thing as the perfect, mistake free moto.

Accept it. Deal with it.

This leads us to the ability to handle errors and take them in stride. Some racers have a hard time putting early-race errors in the back of their minds, which sticks them in a mental rut. Let go of those errors right away and don't over-analyze them. Ride your race one section at a time.

TUNING UP YOUR MIND

The final mental prep for a moto is just as important as the bike prep. You have to tune up your mind. How can you do this? By having a race strategy prepared before you get to the starting line. This is no time to figure out what you need to do! Let experience be your guide. Have confidence in your plan from the starting line to the finish line. You will need to be flexible as conditions change but have a core game to follow. Remember to have fun out there. Pressure and expectation from any source will only cause you grief. Remember why you're out there anyway; it's because of the thrill of putting the hammer down and hanging on!

EMIG'S ARM PUMP TIPS

ARM PUMP;

you know what I'm talking about. It doesn't matter if you hold down a desk job and live for the weekend ride, or you're sponsored to go out and kick butt, if you ride, arm pump is an issue. Even pros aren't immune from it. But it's a critical issue for them since their careers demand that they perform well. How do they deal with the arm pump issue?

First and foremost, they anticipate what's coming up ahead of them on the track. Being prepared will allow you to minimize any trouble. The key here is to constantly stay aware. The next bit of advice involves your positioning on the bike. When you ride with a forward position, with your upper torso above the bars, it will work wonders for you.

What happens is that the bike is pushing you, rather than pulling you.

The next thing you can do is pay attention to positioning. Use your legs to put the squeeze on the bike. This way you can give your whole body a leading role in guiding your bike – there's no reason to let your arms do all the work. And remember to breathe. It's very tempting to hold your breath and cramp up; in fact it's natural. But lack of oxygen in your blood is one of the things that contribute to the pump.

And finally, nothing can take the place of good, old fashioned hard work. Train, train, and then train some more. The more at home you feel on the bike, the more natural your form will be and this will be reflected in your technique and performance. Just like everything else in life, preparation and homework is everything on race day.

Just let it flow!